Cab booking application

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ABSTRACT

This Cab Services App is a modern day tool to solve our day to day transportation related problems. There are a number of issues when it comes to travelling from one place to another, some people don't have their own vehicles, and others don't want to use public transport like buses to travel, independent taxi owners asking for higher fares and many more. Cab service app aims to provide relief to people facing these issues by providing easy to book, cheap and pleasant taxi rides to anyone with access to a smartphone. The cab services app is a two - way tool that encourages both the customers in need of a ride as well as taxi owners and cab service providers to register with the app, thus diminishing the distance between customers and taxi owners. With the cab services app eliminates the need of bargaining that the customers and the drivers have to go through as it makes sure that price one pay for a ride is minimum. This is ensured by the fact that there are multiple cab service providers and the customer has the option to pick the one providing best services for the lowest price.

Keywords: *Taxi booking, Cab Booking app, Mobile app, Online taxi, Cab service.*

1. INTRODUCTION

Cabs in Vellore, counting at best 2.7% of all vehicles in Vellore, accounted for 13% of all journeys made in 2016. Presently, Vellore has approximately 1300 cabs operating with permits. To start as a cab driver, one has to obtain a cab using license, and a cab permit. Cab drivers commonly belong to the lower economic margins of society, and hail from Vellore and its surrounding areas.

Cab fares are set by the local municipal authority, in session with cab unions, and public representatives, deliberating aspects together with consumer charge index, inflation, and gas fees. In case of non-standard rides, the cab drivers (although it is remitted via law for them to just accept all trip-requests) usually, demand better fares from the passengers, or refuse the trip request.

We live in country where more people have access to smartphones than toilets. Technology has reached even the most rural places in India. Cabs predominantly are seen as a luxury that can only be afforded by urban people. We aim to change that. Since the proposed application allows various taxi service providers to register with the cab service (subject to approval), the aim is to provide employment to local drivers, hailing from rural areas by providing them with an opportunity to drive their own taxis. These taxis can provide a cheap transportation to people living far from cities.

This cab application when implemented finally can be improved further by a number of ways like user feedback, questionnaires, etc.

2. RESEARCH

India appears to be going via a 'Taxi' revolution. Each day, there's a new start up providing efficient cab service to the residents working in both urban and rural existence. The intra-city tour has always been a curse for plenty of individuals, particularly in crowded cities like Mumbai, Chennai and Bangalore.

While the trains grow to be an important source of transportation saving money and fuel and help avoid bumper-to-bumper traffic in cosmopolitans like Mumbai, the dangers of journeying by means of those trains are innumerable. The distances in Bangalore overwhelm the spirit out of anybody who travels, and the site visitors make it horrible to force your personal car in the town. We plan on introducing a cab service that if started in Vellore can provide relief to these problems.

2.1 OLA

OLA is a major India based online transportation Network Company. It was founded as an online cab aggregator in Mumbai, but is now based in Bangalore. It is one of the major names when it comes to taxi booking apps and is spread across more than 100 cities in India. However, the rural reach of the company is limited and there are many issues that come along with being such a huge company.

2.2 UBER

UBER is a San Francisco based multi-national ridesharing, food delivery and transportation Network Company. It is spread across more than 600 cities across the world and is often a subject of controversy due to one reason or another.

3. ISSUES IDENTIFIED WITH CURRENT SYSTEM

The most widely used way of travelling other than public transports like buses and trains are private cabs and rickshaws. The drivers often ask for very high fares especially from travellers and non-local people. Even the everyday travellers have to bargain before agreeing for a fair rate. These cabs are also not considered very safe at nights as they are privately owned and lack a strict governing body. The drivers don't care about customer satisfaction and are often pretty reckless while driving. These problems are targeted by the cab booking services app. Since, there are multiple options in terms of cab service providers, drivers who misbehave or ask for higher prices won't receive customers and bad reviews will lead to even lesser people choosing the said service provider. The app shows the customer rating of each taxi service provider next to their names when one is booking a cab.

Another major issue that was identified was drivers getting lost following the Google maps. Since, some services rely heavily on Google maps for travel, there are cases when people take wrong paths because of out-dated maps especially in small cities and rural areas. This is not an issue with the cab booking services app since local taxi drivers are registered with the app.

This app also encourages cab pooling. India is a very densely populated, so it is not hard to pool people travelling in same direction together. This is a very good option for price - sensitive people and daily travellers.

4. PROPOSED APPLICATION

Along with the principle theme of offering an application to search for the closest travels round your dwelling area and e book a cab through your phone in a secure environment, the system is presenting functions like taxi service provider registration on the same platform to maximize the available services for the locations. Through this application, we can also remain up to date with the revolutions that are occurring in the car industry in India or in the course of the world like the news about the modern-day releases of the four-wheeler (vehicles/taxis). The application also provides choices when it comes to the type of taxi, you may want to travel via. These range from a basic and cheaper small car to luxurious sedans and SUVs. This app also presents most suitable opportunity for tour marketers who can use the comments they get from the consumers that used taxi services with the app. So, customers will be encouraged to find time to offer their treasured feedback to the travels/cab operators and the application, which in turn may assist us in making the services better, less expensive, reliable, speedy, facilitated and secure.

Make an easy to use two-mode application for both the users/customers and travel agencies so the travel agency can register their services with the app and the user can avail those services.

This app provides reliable online (internet based) cab (car) booking facility to people in various cities in India, free of cost. It acts like a Bridge between the cab operators and the customers/users/people who book a cab. This is the online cab booking service provided to both the customers and the taxi owners. This brings together the registered travel agencies/cab operators/cab owners and the customers. The app provides this service for free of cost i.e., we provide free registration for the cab owners and free service to the travellers/customers/users who go for booking a cab or car or taxi.

Here the customers can book a cab/taxi/car by viewing all the cab details and pricing details available, according to selected city and area. It is the reliable service provided to both customers and travel agencies. This provides service with well-conditioned new vehicles, with experienced verified drivers for a happy journey of the customers.

Through the app, one can book a taxi from both rural and urban areas. It is proposed to have registered travels or cab operators from all famous cities throughout India like Hydrabad,Vizag,Bhubaneswar,Calcutta,Chandigarh,Chennai,Banglore,Delhi,Cochin,and all other major cities including nearby rural areas.

4.1 CAB SEARCH

User can search cab for a particular location here. User is required to enter Source, Destination and place where he wants to go. The user is then allowed to choose among various available taxi service providers in that area.

4.2 AGENCY REGISTRATION

A travel agent can register their Travel agency in the application for a particular destination. They have to submit their official documents (copy) for security and verification.

4.3 LOGIN PROCESS

In this the customer has to give out the login details i.e. User id and password and then only he can be logged on. The user id and password given by the customer are checked from the data stored in the database.

4.4 REGISTRATION PROCESS

User must be registered before booking a cab. Proper validations will be provided to keep only authenticated users i.e. those users who will provide correct information. All the data supplied by the user will be stored in database and it will be used for further validation and authentication. During registration, user has to give login and password of their choice.

Login names and passwords will be stored in the database so that user can directly login without registering again and again.

4.5 BOOKING CONFIRMATION

After validating the entered information and getting approval from credit card authorization service the system provides the visitor the notice on successful registration. A message with details of the ride is then sent to both the taxi driver and the customer.

4.6 CUSTOMER FEEDBACK

Customers are encouraged to submit a feedback regarding their overall experience as well as the taxi service provider they chose for their ride. This feedback is displayed next to the taxi service names at the time of cab booking and might come in handy.
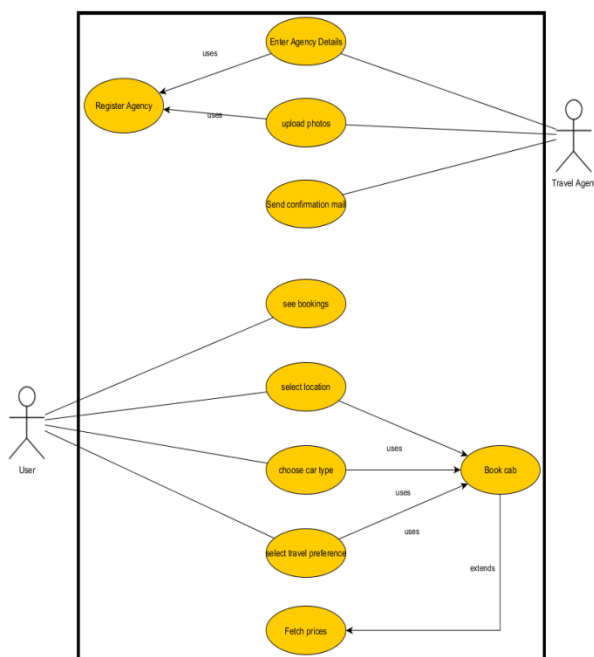
5. SOFTWARE DEVELOPMENT

The application was built following a proper software development model. The first step was to collect information on the various facets regarding a cab booking application and various requirements associated with the development of such an application. The internet came in handy for this task as there are numerous feedbacks and suggestions by real consumers as well as a ton of information about some existing services available on the internet.

Next important phase was the Architecture design phase. Since, the most important feature of this app is its two-way nature i.e., it allows both the customer as well as the service providers to register; we divided the app architecture into two parts – 1. The customer part 2. The taxi service provider part. We wanted the application design to be simple and user friendly. So, we stayed away from complex design for both our customer and taxi service provider sections of the application.

After the Architecture and design phase, the coding part was done.

Testing of the application was done next. We ran much different iteration of simulations to test the breaking points of the app and tried fixing them during the testing phase. Since, no one can claim their application to be free of bugs and errors, we don't either, as the most important test of any software is when it is up and running in the real world.

Use – case Diagram for Cab Booking Services Application

6. CONCLUSION

Mobile applications for Taxicab booking is one of the basic need of the general population nowadays, especially in urban areas since this application picks up significance among the general population. The client can even take into consideration, the driver or the type of car and other subtle elements while booking the taxicab. The application associates the end client with the driver and builds up correspondence until the point that the outing is finished. Travel agencies have to register with the service providers through the application and hence are reliable. A two-way application like this also opens doors of a reliable employment for the drivers and other taxi service providers who can register with the app, along with the obvious service provided to the direct customers who can book a cab through it. Henceforth, portable applications for cab booking are one such application that can be utilized by anybody effectively.

There are still many areas in which the application can be improved. Feedback system can be made better and some features can be added in future to benefit long time users and customers. In metropolitan cities there is bulk of transport facilities but in small towns, villages or cities there are no such facilities. So some small places like Vellore and Ooty where there is not much convenient transport facilities available will also be added to the app. This app will help people in travelling from one place to another with ease and more comfort.

7. REFERENCES

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