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Advanced Truck Pooling Application for Agriculture

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***Abstract:** This project is entitled as "Advanced Truck pooling application for Agriculture" is developed as a mobile application using client server tools programs like Asp.net as front end, C# as coding language and SQL server as backend. The foremost purpose of this development is to reduce the traveling cost while traveling through private vehicles like trucks or lorries in the same way or in the same route. In this fast life, individuals find it difficult to interact with people due to lack of time even though they belong to the same place as the destination. Still many trucks traveling alone with less weight for a long distance. This makes it more expensive for the farmers. According to the survey, group traveling will reduce the cost of travel, provides more secured, fuel efficiency, less pollutes the environment etc. Group travel will give us more advantages than single travel. In order to connect people, this application is developed to be connected with those people who are traveling to the same destination or via destination. Also, one should contact the people in their circle directly if they want to travel together with them. This application contains two mediums namely provider and seeker. Providers are the one who initiate the travel and fix the destination and seekers are the ones who accept to travel with the provider.*

I. INTRODUCTION

In India, many cities are experiencing the transport management problems from recent years. This leads to number of problems like traffic congestion, high energy consumption, loss of productivity, air pollution, increase in death accident rates, etc. Major cities had not just witnessed ascend in the public but additionally, the quantity of vehicles, as well as their utilization, were additionally amplified for a higher price in the latest years. In terms of population Tamil Nadu has ranked seventh in between the states. The entire numbers of vehicles in Chennai (17.5 million approx.) had been much more than the number of vehicles in urban areas of Coimbatore (1.4 thousand approx.), Calcutta (5.61 lacs approx.).Due to lack of a well-organized transportation process in towns and cities, there's been an escalating phenomenon towards rise in different problems. This is energy exhaustive and contaminating as well as costlier towards the economic system. Thus, we face a scenario just where we are going through a scarcity of restful as well as trustworthy ways of transportation while huge about source of conveyance capability is choking the streets of ours. The increased number of vehicles on highways of the towns as well as cities has serious issue of congestion as well as air pollution. Farmers faces lot of transportation problem during harvesting time so to overcome this a mobile application have been developed. Truck Pooling application can be used by farmers or any common person to rent a truck to transport goods. In this we can get the details of the trucks available in nearby location and also, we can get the contact details of the truck owner or driver to book truck. The details of the individual truck will be stored in the database. The main objective is to manage the details of the truck and book them in the time of required or can pre book any truck available. This developed application is totally built at the end user and thus the administrator, truck owner and seeker are responsible for managing the booking details.

In time of harvesting period or in case of transporting anything from one place to another truck booking is hard. It takes long time to get details of trucks nearby and contact the owner and driver.

To solve these kinds of problem, Truck Pooling application can play a major role in booking the trucks that are available with the particular area and type of truck required in that time.



Fig1: Transport

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II. TRUCK POOLING SERVICE

The main objective of this proposed project is to reduce the travelling cost while travelling through private vehicles like truck or lorries in a same way or in same route. In this fast life, individuals find difficult to interact with people due to lack of time even though they belong to same place as the destination. Still many trucks travelling alone with less weight for a long distance. This makes more expensive for the farmers. According to the survey, group traveling will reduce the cost of travel, provides more secured, fuel efficiency, less pollutes the environment and etc. Group travel will give us more advantages than single travel.

The proposed structure efforts to avoid the difficulties raised in the current system. The main automation procedure is the mobile based application. Here the application is developed in a web-based method and hosted in the centralized server. The centralized server details can be accessed through the mobile application. This application is a freeware, so any user can download from the Google market. It automates the whole practice of courier management System. It needs a provision to preserve understand entries, provision to ready inward, distribution specifics etc. It must offer usually necessary information to fulfil the demand of the problem. With all the assistance of help messages and validation determines the new system is able to add a great deal on the precision of information article development is super easy. Computerizing the device is able to manage huge inflow of information. Computerizing the system can handle large inflow of data. It's user-friendly as well as flexible fast as contrasting to the manual one.

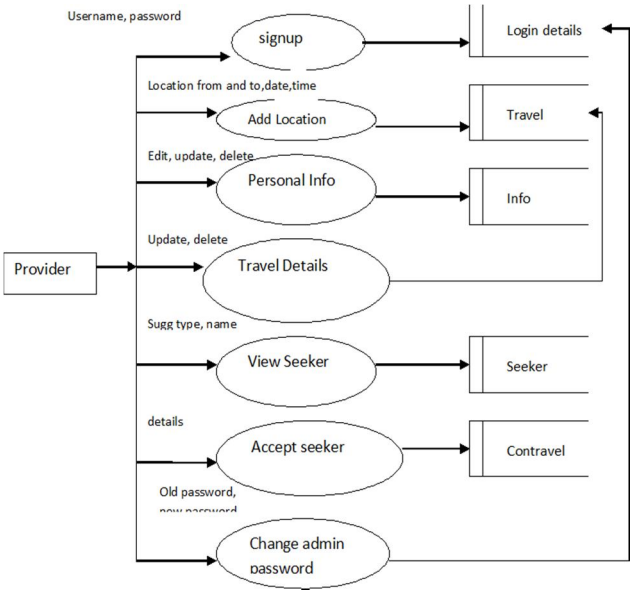


Fig2: Content Model Next is describing the modules in this system.

A. Provider

Sign up is the initial process of the project. Here the provider can create the free sign up with their personal details and create the travel details like from, via and to destination. After creating the destination, the provider needs to add their license details, vehicle type and number of members going to travel with him.

B. Seeker

The same process is for seeker. Seeker need to sign up with their personal details. Seeker can search for the travel destination. A multi option list box has been provided to seeker for selecting the source and destination also the date of the travel. Once the seeker selected the source and destination, they can see the provider's basic details like name and truck details. A request will be sent to the provider from the seeker. Now provider can see the seeker's request.

C. Travel Confirmation

The travel confirmation will be done by the provider only. The provider can view the seeker's full details after the confirmation only. After the confirmation the provider and seeker can view the full details. This option will be enabled after the confirmation only. Once the travel got confirmed the search details will disable for another search. So that provider will not be disturbed from various unwanted requests.

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D. Manage Details and Comments

This module has more details like add, update, view and delete. In case the provider can't able to travel on the same day means, he can update the details. If seeker is willing, they can travel in the other day. Else the provider can delete the posted travel details permanently. Commenting options available in this module. Using this option provider or seeker can view the corresponding comments of the user before the travel. Comments can be viewed only by selecting the users.

E. Mobile application and Server

Mobile application and its server are significant module of this project; because the updating data will be stored in the centralized server as well as the sub servers. A prior server is going to be allotted to approach the details. They will be allowed to update the facts too. Each centralized detail will be existing in the web server and mobile application so that authorized user can easily to access the server from anywhere at any time. This will provide more security to the centralized server as well as substantial bandwidth will be allotted to access a better number of authorized users at the same time. A dedicated mobile application is developed using this module.

III.FEASIBILITY STUDY

The feasibility of the application is analysed to this business as well as phase proposition is put forth with an extremely basic plan for the development along with several cost estimates. Throughout method evaluation the feasibility analysis of the proposed method is usually to be truckried out.

This is to certify that the proposed method is not a concern on the business. For feasibility evaluation, about understanding of the main necessities for the method is important.

Three main considerations involved in the feasibility evaluation are

A. Economical Feasibility"

This particular analysis is truckried out to look at the economic effect that the system will have on" the association. The quantity of fund that the corporation can pour into the research as well as development of the system is limited . The expenses must be acceptable. Therefore, the evolved program also to the finances and this was accomplished since virtually all of the solutions utilized are readily available. Therefore, the developed system along within the budget as well as this was accomplished since maximum number of the technologies used are freely accessible. Particularly the modified products had to be purchased.

B. Technical Feasibility

This study analysis is truckried out to look at the specialized feasibility, that is, the technical demands of the system. Each system established must not have a high mandate on the existing technical resources. This would result in demands that are high on the accessible technical resources. This can result in high demands being sited on the client. The developed system must have a quiet necessity, as only slight or null changes are essential for implementing this system.

C. Social Feasibility

The feature of the analysis is to checking the level of validation of the system through the users. Additionally, it comes with the procedure of the training for the users, so that they can use the system competently. The user must not threaten by the system, instead its necessity to identifies it to be a need. The acceptance level of the users is determined by the procedures that are engaged the users to educate them about the system as well as make them familiar with the system. Assurance level of the authorized user must be raised, so that they also do some productive criticism, it is welcomed, as user as the system's final authorized user.

IV. ARCHITECTURE PERFORMANCE

The architecture established operates under the viewpoint of client/server in, its demonstrations the distribution of architecture.

A. Provider

Sign up is the initial process of the project. Here the provider can create the free sign up with their personal details and create the travel details like from, via and to destination. After creating the destination, the provider needs to add their license details, vehicle type and number of members going to travel with him.

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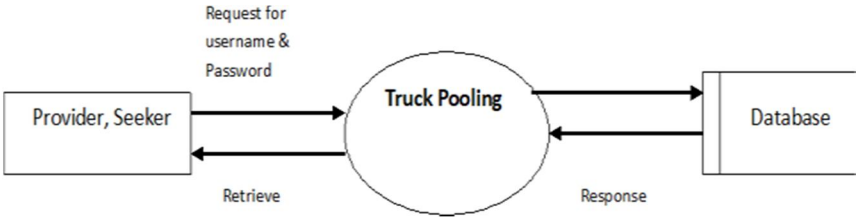


Fig 3: Architecture performance

C. Database

OLE DB, an API created by Microsoft, enables accessing information from a variety of sources in a uniform way. The API offers a set of interfaces implemented going with the Component Object Model.

V. USEFULNESS TO SOCIETY

A. A dedicated mobile application has been proposed for travellers, those who travel frequently.

B. All the processes are automated in a single window, using client server technology. with

C. Can travel with unknown person, safety guaranteed.

D. Can travel more distance for less amount of money, can't get bored during the travel.

E. After knowing all the travel details, the phone number and email will be shared. So that phone number privacy has been implemented.

F. Provider can cancel the travel plan at any time in case of any emergency.

VI. CONCLUSION

The application developed for reducing the transportation problems faced by the farmers and it will help in reducing the air pollution and economy cost too. This application works well and executed in well manner. The application is analysed perfectly as well as faults are accurately debugged. This particular application can be used simultaneously as well as it can access from over 100000 users at an exact period. Login from more than one place is verified simultaneously. This particular application works as per the restrictions as well as rules and regulation. Additional developments could be made to the application; therefore, this application works attractive as well as in suitable way than the existing one. The transactions speed be more sufficient now because of client server operation.

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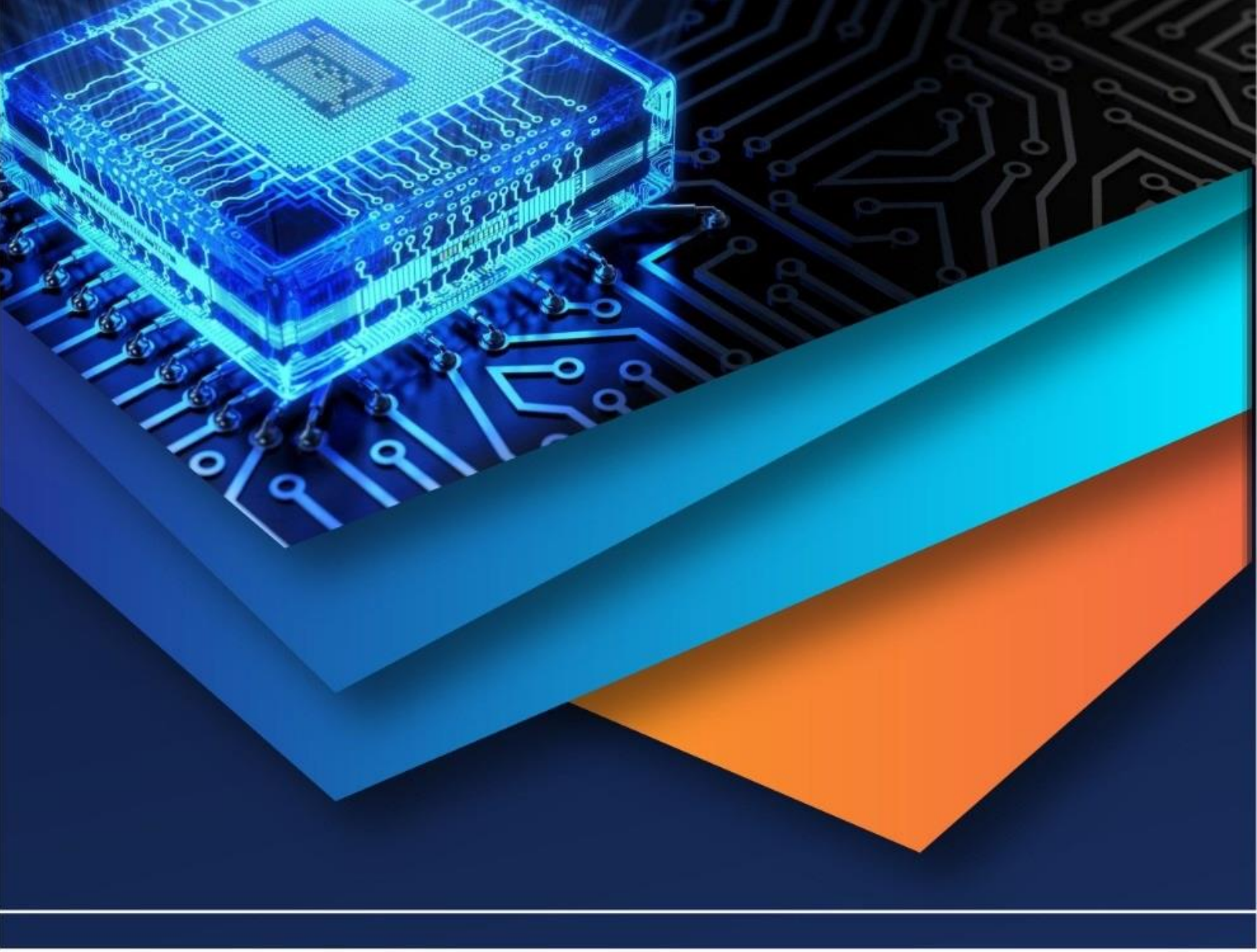
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