Dynamic Web Based Platform for Vehicle Pooling

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Abstract

Vehicle pooling is the sharing of journeys through different means of road transport like car, bike and many more vehicles. Sharing of journey is useful so that more than one person can travel by same vehicle. Vehicle pooling helps reduce travelling cost of fuel, tolls and maintenance. Also vehicle pooling helps in reducing traffic, save fuel, need of parking space and also pollution will be controlled. We intent on making web based and Android based application that will help people know whether there are any seats available for pool in the desired path so they can join the pool. This platform will help ease journey of users of 'Helping Wheels'. People will have 'Helping Wheels' application on their android phones and those not having android phones will use this service through its website. Also people will able to use this without worrying about security.

Keywords: Dynamic Website, Car Pool, Reduce Traffic, Secure

I. INTRODUCTION

Travelling on road is basics of everyone's daily chores. It may be through public transport or through private vehicle, but it is necessity. As public transport is overcrowded and many a times private vehicles are not fully occupied. So these vehicles will be utilized as per the convenience of owner of vehicle. And also there will less overhead in public transport. The main merit is that, the vehicle owner does not need to change their daily route and serve to the clients whose destination is on same route.
So this service need to be used by both client and server side and also both client and server would need to agree on fixed source and destination point. This is how pool works in simple words.

However, public transport is not a well-developed system in India and apart from the inconvenience with respect to time, it is also usually unreliable. Though non-conventional fuel resources attempt to stem pollution, there has not yet been devised a cost effective manner in which to harness it for automobiles. Physical means of transport are not an option when faced with a transit of long distances.

Our intended system aims to reduce traffic a well as provide safe ride. We plan to create a vehicle pooling system which give users the same flexibility that a private vehicle gives and which reduces the number of vehicles used at the same time. The recommended solution for reducing the harmful factors leading to such problems is vehicle pooling. This type of transportation service could make a big difference if organized on a large scale by government or big companies, particularly large corporations with many branches or sub companies. Vehicle pooling schemes are designed to encourage commuters to share travel expenses and resources with colleagues. Vehicle pooling, is the shared use of a vehicle by the driver and one or more passengers, usually for commuting. Vehicle pooling arrangements and schemes involve varying degrees of formality and regularity.

II. PROPOSED SYSTEM

The main purpose of this project is to provide platform for all commuters travelling on road to help people use vehicles which have vacant seats or are partially filled to help those commuters on the same route. So that those people on same route may join the pool. For instance, two people have same source and destination points but both use different vehicles then pooling could be done so that only one of the vehicle could be used by both of them. This will in turn reduce traffic congestion on roads.

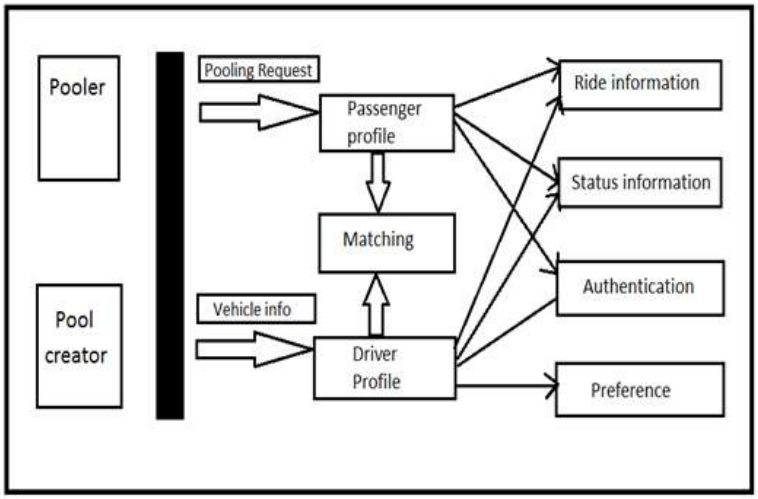

Fig. 1: Basic Architecture of Vehicle Pooling

This will also save fuel and also help control pollution. We are developing web based service. We will be trying to inculcate in the people the culture of sharing transport and vehicle pooling for the judicious usage of natural resources. Vehicle sharing aims at solving this problem by targeting the empty seats in the private vehicles. Employees of the same area or the students going to the same school can vehicle pool. This can be done as the know each other and can communicate. But when going on an intercity trip you are not aware if some other person also intends to make the same journey, thus the applications helps you in seeing people and journey schedules and make an informed decision about do you wish to travel alone or save money and travel with a safe company.

III. MODEL

We can use agile model. Is has basically 4 stages in it: Scope, Define, Develop, Evaluate.

Fig. 2: Agile Methodology

- Scope: It define all requirement gathering and planning stage.
- Define: All modeling process is carried out in this stage
- Develop: All core coding is carried out in this stage.
- Evaluate: Formal testing and deployment is done in this stage.

IV. HARDWARE AND SOFTWARE REQUIREMENTS

- Any mobile phone with web browsers.
- Internet service
- A decent and stable computer system for development website.
- Server for hosting website Analyze.

- Operating system: windows 7
- Software such as Xampp, Adobe Photoshop, Notepad++ for actual implementation of project.
- MS-office for documentation services
- Web browsers such as Google chrome, Firefox, etc.

V. FUTURE SCOPE

- In future GPS could be added.
- Provide alternative ways for viewing the poolers.
- Social media could be integrated.
- Online payment options could be added.

VI. CONCLUSION

This application would help in the process of creation of, instant vehicle pools. Thus, we successfully reduced the long conversations needed for normal vehicle pool events. In future, more functionality can be added to make this website more robust and more feature rich.

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