CAR POOLING SYSTEM

**INTRODUCTION**

**1.1 Purpose**

The basic purpose of the car pooling system is to make the travel of common people hassle free and also budget friendly. This will help in reducing the pollution and also the cost of travelling, as the complete fare will be shared among the passengers. Unlike Local Trains or Local buses, in this car pooling system, the passengers will be able to go from their source to destination with their convenience, they can decide their time and pick up location, there will be no fixed stoppage like Bus or Train, similarly the destination will also be decided by the passenger only. Along with all these things, this car pooling system will also look into the safety of the passengers as everything will be based on live location. The passenger can see the route of the car, in which direction the car is going, hence it will be completely safe.

**1.2 Scope**

This system allows the Customer can easily get the car whenever they need to on the rent with use of this system.it also helps in save time and cost of travelling.it will be useful especially for daily working people for travelling without any time restrictions.it will helpful for passengers to travel according to their time and date.

**1.3 Definitions**

CPS- Car Rental System

SRS- Software Requirement Specification

**Aim and Objective**

1 Reducing overall traffic congestion on the roads

2 Reduce peak hour congestion

3 Reducing single occupancy car trips by implementing CPS

4 Promoting alternative modes of transport.

5 Improve parking in areas that are experiencing parking congestion

6 Save money by sharing the cost of driving one car.

7 Reduce the number of cars on the road.

8 Reduce pollution and carbon dioxide emissions.

9 Reduces driving-related stress for participants

10 Provide social connections in the society.

**1.4 Overview**

It is a system design especially for large, premium and small car rental businesses. The car pooling system provides complete functionality of listing and booking cars. In this system, Tourism and Travelling facilities also provide.This proposed system can be used by any naïve users and it does not require any educational level,experience or technical expertise in computer field but it will be of good use if user has the good knowledge of how to operate a computer,laptops,mobile etc.Basically Carpooling is a transport system based on a shared use of private cars.

**1.5 Existing System**

An existing system can provide manual paperwork.The user has to go to the office where the user can get the car on rent and book their car.In the existing system you cannot provide feedback of the user to the admin online

**2.0. Overall Description**

The Car Rental System application enables admin to add a car, manage booking car and rent and also view feedback and enquiry, Users can view information of available car, booking car, easily get the car on rent and also give feedback and can enquiry. Also the developer is designing an online car rental site to manage the cars in the portal and also help customers to book them online without visiting the centre physically.The online car rental system will use the internet as the sole method for booking cars on rent for customers.

**2.1 Product Perspective**

This product is aimed toward a passenger who doesn't want to visit any place as he might not get time for that or might not be interested in visiting there and dealing with a lot of formalities. If any passenger does not want to wait for time as well as do not want to visit any place.

**2.2 Product Function**

Car Pooling System should support this use case:

**Use Case Diagrams** : A Use case is a description of a set of sequence of actions. Graphically it is rendered as an ellipse with a solid line including only its name. Use case diagram is a behavioural diagram that shows a set of use cases and actors and their relationship. It is an association between the use cases and actors. An actor represents a real-world object. Primary Actor - Sender, Secondary- Actor Receiver

**2.3 Characteristics.**

Passenger should be familiar with the terms like login,register etc.also should familiar with payment type options to make payment

**3 Specific Requirement**

**3.1 Functional Requirement**

**PostgreSql:** PostgreSql will be used for storing the database and other information.

**JAVA/.NET** For backed and other functions JAVA will be used.

**JAVAScript/CSS** For front end and designing the user interface the javascript and the css will be used.

**3.1.1 User Specification**

**Vehicle Owner:**

Vehicle Owners can add a car, manage booking car and rent and also view feedback and enquiry.

**Passenger:**

Passengers can view information of available cars, book a car, easily get the car on rent and also give feedback and can enquiry.

**3.1.2 Module Specification**

**Passenger**

**•View Available Cars:**

It is a system design especially for large, premium and small car rental businesses. The user can view Available cars and the passenger can book for that car.

**•Booking Car:**

The user can view Available cars and passengers can book for that car.

**•Easily Get the Car on rent:**

The Passenger can easily get the car whenever they need to on the rent with use of this system.

**•Give Feedback:**

The passenger will give the feedback to the car Owner.

**•Enquiry:**

The inquiry can easily be done by the passenger.

**Vehicle Owner**

**Dashboard:**

In this section car Owner can view the overview of the car rental (Like total vehicles, total booking, brands enquiry)

**Vehicle Brand:**

Vehicle Owner can create/edit/delete vehicle brands

**Vehicles:**

The owner can add the car so that The passenger can see the available cars and book the car.Vehicle owner can also edit and delete the cars.

**Bookings:**

Owner can manage the bookings (confirm and cancel the booking)

**Manage Contact us query:**

Owner can manage the Contact us query.

**View Feedback:**

The Owner easily views the feedback and solves the query.

**Registered passengers:**

Owner can view the registered passengers.

**Manage pages:**

Owner can update the page's data information.

**Contact info:**

Owner can update the contact info.

**3.1.3 Application Specification**

The carpooling application is **intended to people travelling**, to make it a cheaper affair. ... The passenger and the driver will enter his location, destination and time of travel. The passenger gets information about the drivers who travel along the same route

**3.1.4 Interface Specification**

**3.2 Non functional Requirements**

**a) Performance**

The application has to offer a very quick response time as the meeting between the driver and passengers is done through notifications. In other words, the server should be able to treat notifications and propagate them instantly. The application should handle 1000 users sending queries at the same time.

**b) Scalability**

The application should respond properly to a high increase of users. It should be able to handle from 10 000 users to 100 000 users. And also from 100 000 to one millions users.

**c) Extensibility**

The application should be extensible in order to support multiple platforms including iOS, Windows Phone and Web.

**d) Availability**

Since a lot of information about the trips and check in are available in the application, it has to be highly available and guarantees a good server up-time. The server should allow only 1 hour downtime per year which is 99.99% up-time.

**e) Privacy and Security** T

login system should also be robust where only authorised users can post and edit their own information.

**f) Maintainability**

Since the application will be developed in the future by adding other features, it should be easily maintainable.and should be updated regularly