

Mobile Car Services

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Abstract

Mobile car washing system is very common in developed countries in recent times. Mobile Car wash is one of those features in automobile industry that lets you to find the right dealers from the application. This study also tries to design a control set for simulating and building the carwash that provides a good service. The main purpose of the simulation is to develop criteria for designing and building this type of carwash in actual size to overcome challenges and to meet the busy schedule of our daily life. The aim of the study is to propose a Web Based Application to bring the dealers and customers on one platform with minimal cost. In the present era, technology is changing very rapidly and the networking system is the domain which needs continuous monitoring. It helps to organize the Car Cleaning segment to give the community a new definition of car care .To keep up with the changes, we need to develop systems which are capable of performing different functions.

Introduction

The simple concept behind MOBILE CAR WASH is using the idle parking time while owners leave their cars to perform their other activities such as shopping, working, entertainment, studying etc in order to provide first class ecological hand carwash and detailing services, without moving car form its parking spot. Since the Mobile Car Wash washing carts are 100% based on clean environment after car cleaning process, our system would not leave foam, water or dirt on the floor, it can be offered in any indoor or outdoor parking facility without the need of any additional infrastructure. The Mobile Car Wash is a brand that literally going to change the way people think about car cleaning. It is a unique car cleaning concept where a customer books the dealer in his own or surrounding locality according to his own preference and also chooses dealer as per his choice and then the assigned worker from that specific company comes and does the service. The service men provides the prompt and convenient car cleaning service, first of its kind , which served the purpose of the fast paced society we live in, where people want their car cleaned in the shortest possible time by a trained person at your door step. The Mobile Car Wash Promises its customer with an excellent services, values for money, highest quality and consistent result. It provides you the wonderful car cleaning experience.

Literature Survey

[1] The car wash industry appears today to be more conscious of the need for wastewater treatment and water reclamation. Worldwide environmental legislation and guidelines concerning this specific issue have been released. Regarding water consumption, for instance, in Queensland, Australia, it is mandatory to use at most 70 L of freshwater in a single car wash, and in Europe some countries restrict the water consumption to 60–70 L per car and/or impose a reclamation percentage (70–80%) from paper called “Car Wash **Wastewater Treatment and Water Rescue**”. [2] In paper a “**Automatic Car Wash**” by Anam Abed, it is discussed about an automated car wash mechanism. The start of the history of car washing is dated back into 1914 .It discusses about the energy wastage and man power. People used manpower to push or move the cars through stages of the process. The first semi-automatic car wash was active for the first time in Detroit, Michigan; using automatic pulley systems and manual brushing, called ‘Rub-a-Dub’. By mid 1960s, several machines have been made to perform the main tasks of car washing process; this included

the wrap-around brush, roller-on-demand conveyor belt, soft cloth friction washing, several ways to wash the tires, and a re-circulating water system. There are many types of car washes. Some of them are Hand car wash where the vehicle is washed by employees, Self services car wash where the customer performs the washing, Chemical car washes which use chemicals to wash and polishing the car surface etc., Nowadays automation has extended its hands in various fields. In automobile services manual car washing requires more labor effects, time consumption and also the results may not be satisfactory to the customers

Method and Analysis

System Overview:

The frame work significantly comprises of three Modules like Admin Module, Dealer’s Module and Customer’s Module. It serves the purpose as a web portal to book the carwash services according to customer specifications like based on the locality of customer and the automobile car washing service center names specifically. The proposed system offers quick, convenient, and efficient carwash services. The steps involved in the car wash process consists of [1]customer visits the website and book the car wash service based on the locality ,service and service providers name, [2]then dealer gets notified about the bookings of all customer after getting approved by dealer, service men are assigned to a particular customer with some specific timings and payment is done after the service either by online or offline payment, [3]before dealer has to get registered in the portal with the company name and services they provide after receiving the approval form the admin ,the automobile service company is ready to provide services to its customers through this Mobile Car wash Portal With the intelligence incorporated in the design, the developed system is capable to consider the requests of customers for effective washing process.

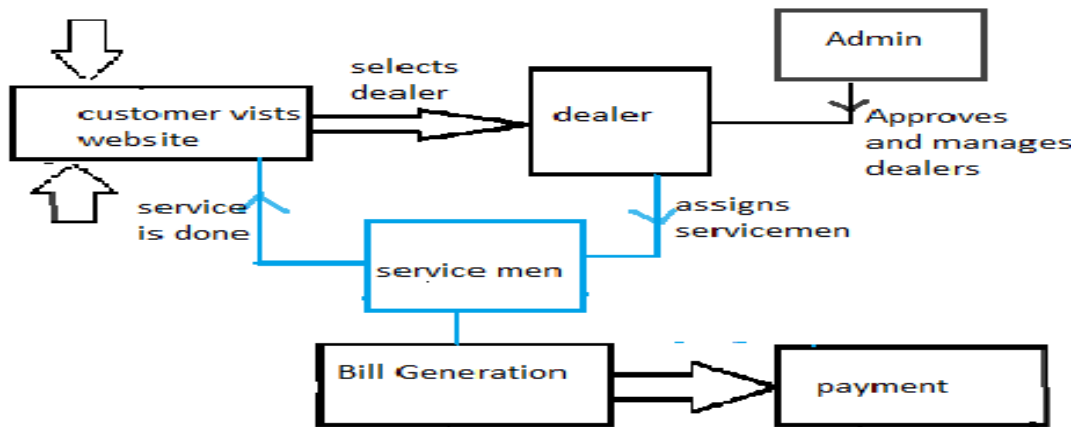


Fig 1: Block Diagram

Requirement Specification

The system analysis is done keeping in mind the following key requirements:

- The user should be able to access the application.
- Provide a simple and user-friendly interface on the client side .
- The system shall enable to provide the required information for the user .
- The system shall provide browsing options to see dealer and service details.
- The system shall allow user to update the services and his/her feedback of service is taken through the portal.

System Working

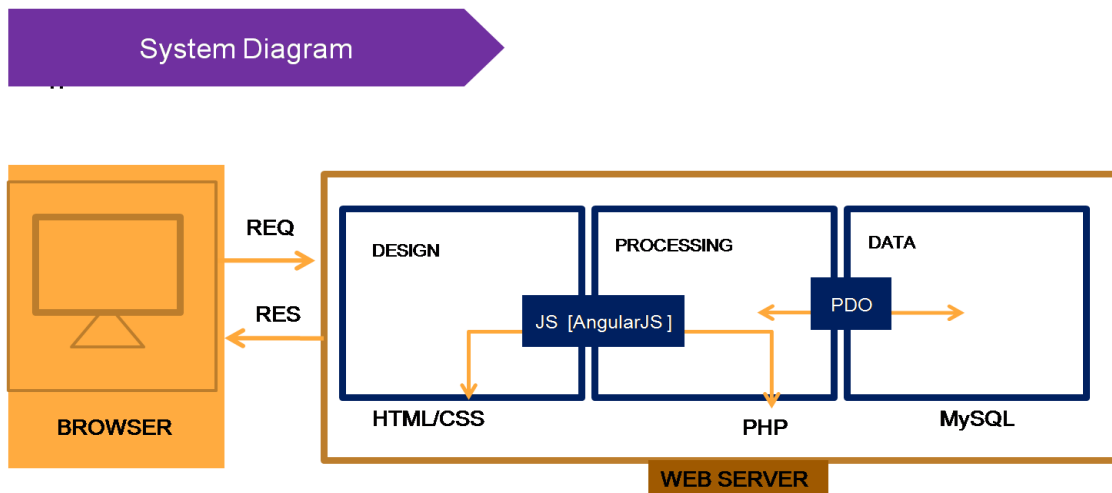


Fig 2: The Diagram illustrates the working of each module as a whole system.

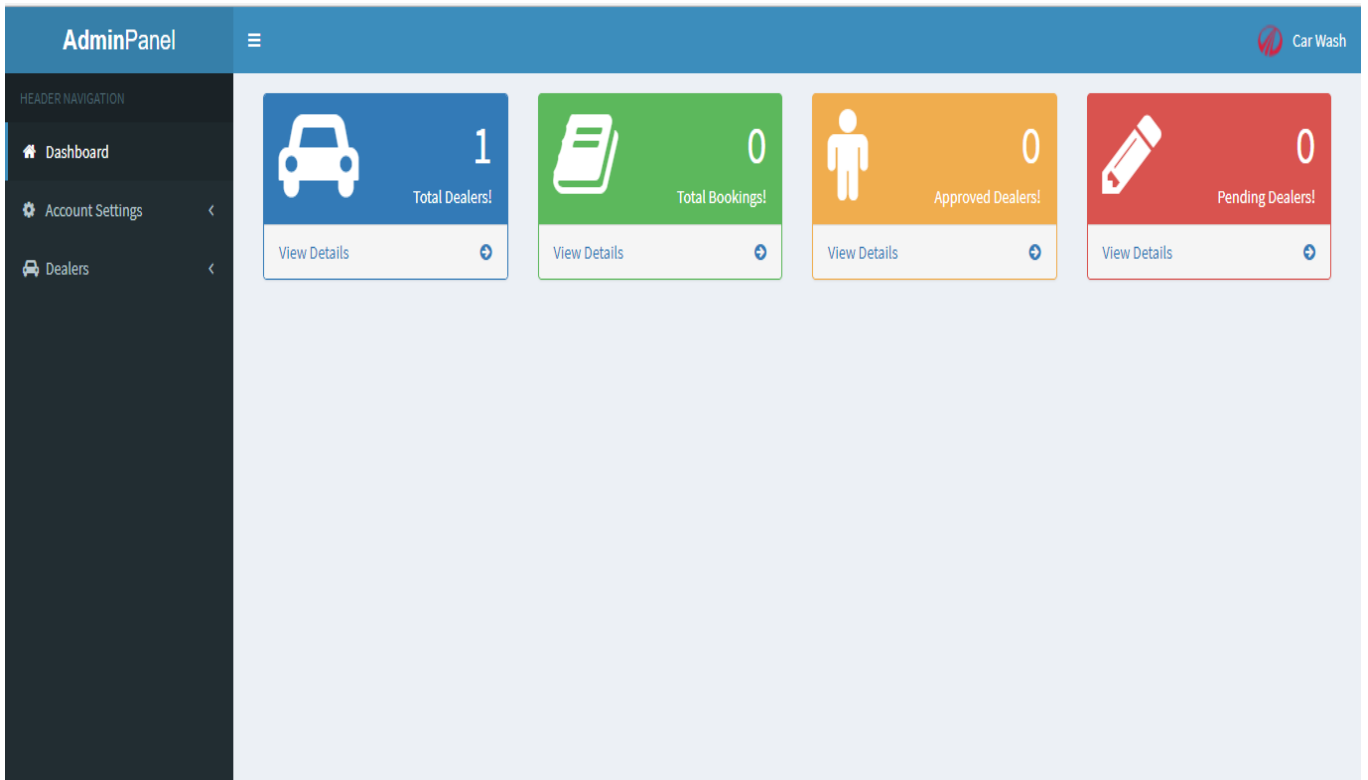
The working procedure of this system can be seen in through three different module.

- Admin Module
- Dealer's Module
- Booking Module

[1]Admin Module

'Admin'- word generally means managing things and monitoring the activities in a group time -to- time and day-by-day. Admin has the power to approve or deny the access to any particular person from the group. The admin module is the most important module in the project.

Admin has the count of number of Approved, Pending and Deleted dealers . He can continuously monitor the system and have a track of both the customers and dealers as well.



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Fig 3: Admin Panel

[2] Dealers Module

In dealers module, each individual dealer had his own account which is unique to specify the company name and services they provide. He has the privilege to approve the customers who ever requested for the service. Dealer can also have the count of number of approved, pending and deleted customers to check. The service men are assigned by the individual dealers not by the admin .This module is all about the dealers those are associated in the portal.

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- If the dealer wants to join the portal, he must sign up by which the admin receives a notification that a dealer made request to join
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- Then if the admin approves the request, the particular dealer will be available to take requests from the customers

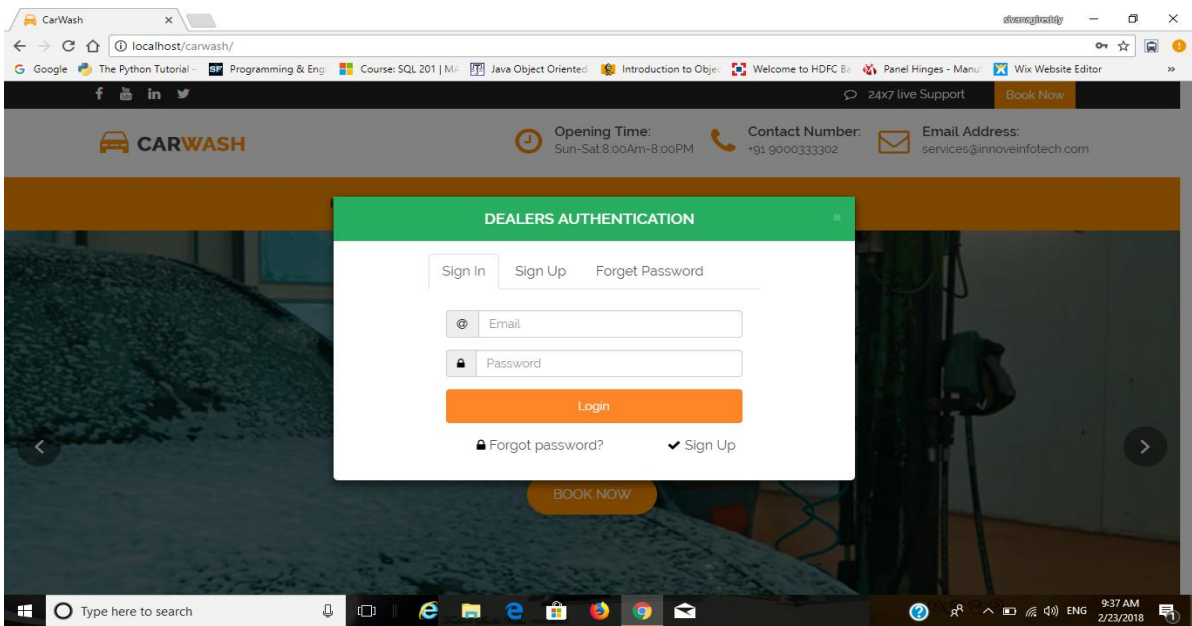


Fig 4: Dealers Panel

- Before assigning the service men to the customer the dealer has a record of customer service, a good advertising planning which makes the customers believe about the service, personal management, technical proficiency of the service men as it is the most important thing to provide the best service to the requested customers.
- Unless the approval is made the dealer will not get any service requests

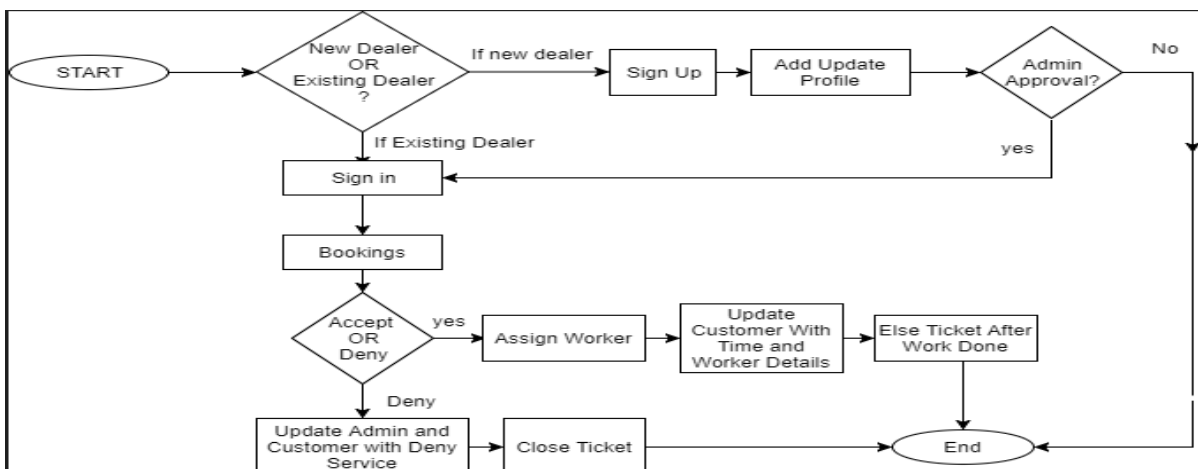


Fig 5: Flow chart Diagram showing the interaction between dealer, customer and admin.

[3]Booking Module

- This is the module where all the information related to the customers such as the bookings, payments, etc. are maintained.
- In this portal even the customers have a login form which is mandatory when booking a service.
- It is monitored by admin and the dealer
- The approval for the sutomers module is done by the dealers .

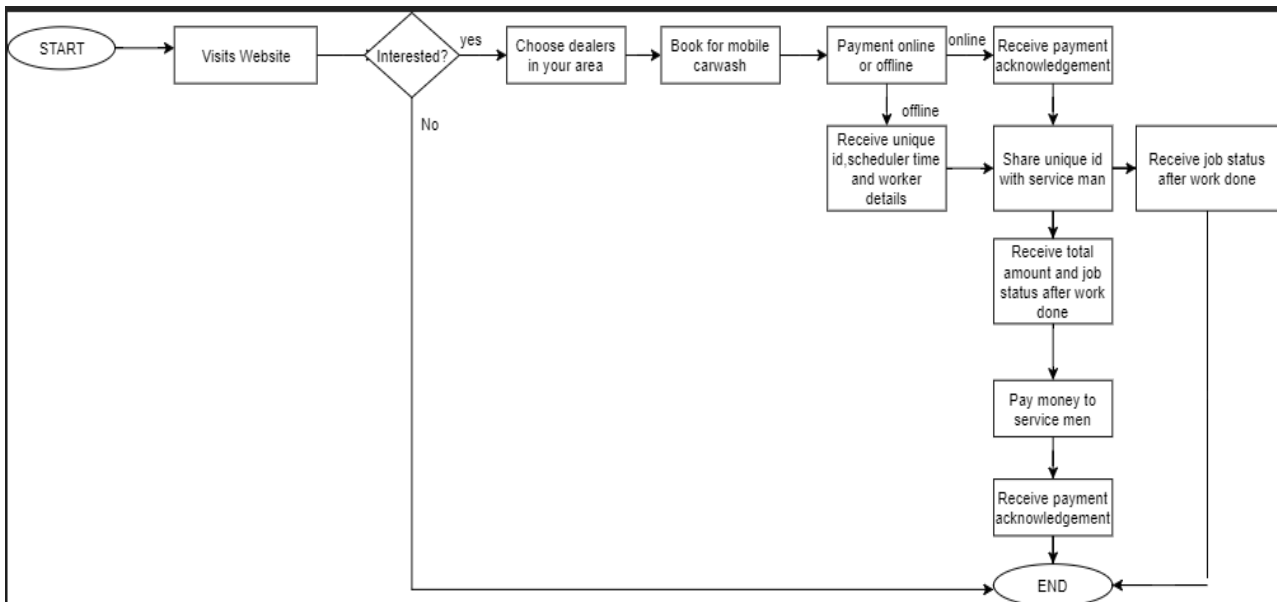


Fig 6: The Diagram illustrates the Booking module

The complete overview of the mobile carwash system is given by the interaction diagram I which all the three modules actions can be observed clearly, How admin and customers are connected indirectly with the help of dealers module and their interaction.

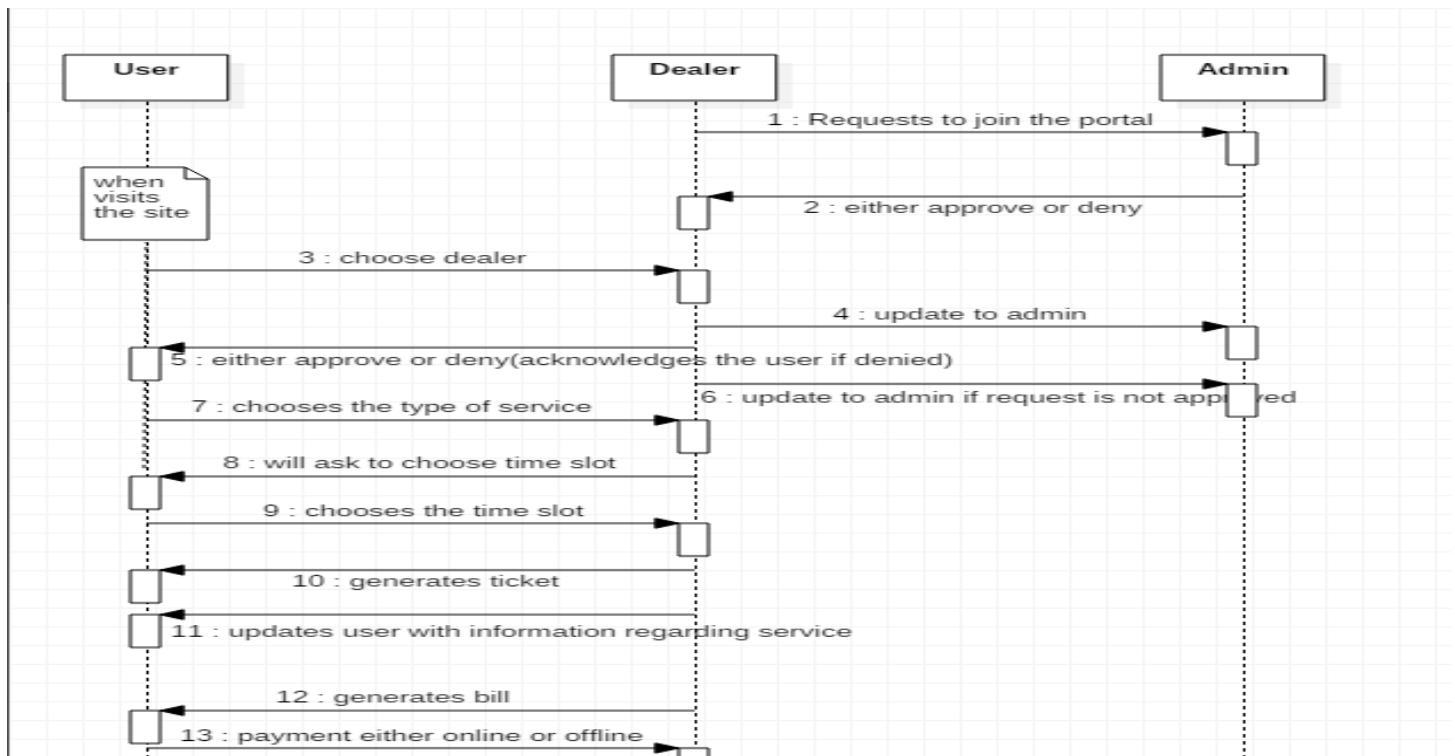


Fig 7: The Diagram illustrates the interaction diagram of the system

Conclusion

Previously, each individual dealer had used their own web portal which specifies their company services and norms to their customers. This Mobile Car Wash Application we found is a specific platform like a web portal which helps to enhance the bridge between service person and customer. This prototype will help to perform car washing results in high quality end product. Customers can book service on a particular date and time and the rest is taken care of the workshop. Thus it is an application providing transparency and a promising customer experience. Thus it will be User-friendly as customers are notified by frequent messages at start and end of process. This portal is user-friendly, provides with the best services anywhere as per the customer requirement. It is cost effective. Provides transparency of service and it has a responsive design and efficient performance. It is a platform where a customer will have to choose the dealer from a given list.

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