Vozilo Care

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Abstract- *Now a day, technology is on a boost. People wish to live a luxurious life with minimum physical work. In the proposed system, we shall be dealing with the maintenance issues faced by common people for their vehicle. Here we provide a mobile application for vehicle service and maintenance geared to control costs of your vehicle, from the supply of repair. This application is an android app which can be run on any android compatible tablets and mobile phones. The app will enable any car user to search and communicate with any car service center in the ahmedabad. The user can find the service center, get its location, check prize and service quality and select any of the services provided by the respective service center. The user can send request for pick and drop, appointment for servicing as well as accessories purchase to the dealer. It provides roadside assistance and the list of nearest fuel stations. This application also provides best packages so people can get best services together in minimum rate. This app also enables the user to set alarms for next servicing date. We have also worked on cashless payment for repairing damage parts of vehicle for promoting digital India initiative. Thus, we are developing an application which goes hand in hand with the new age technology and characterizes – user friendliness, informativeness and time saving.*

Keywords- GPS, Android, Vehicle tracking, Filling stations, Two-Wheeler Service Provider, Four-Wheeler Service Provider, Vehicle Service Provider, Fuel Station Finder

I. INTRODUCTION

Vozilo Care is an application that will be helpful to that people who use their vehicles on daily basis. Any user can make use of such app to locate and communicate with the service centers in the ahmedabad. It will be easy to handle various servicing requirements of users through this application. It will be easy and efficient to use. The system concentrates on data given by user and gives a statistical report. The dealer processes these requests and gives a response back to the user through push messages. This will make the communication easy between user and service providers. User can choose the service types that they wish to work on their vehicles. Moreover, they can send their approval or disapproval regarding the service types that has been sent to them by the service provider. Service providers can schedule the services of the users on various accounts so that it will get uploaded on the respective accounts on the scheduled day and time. This will make the work of service providers very easy and can handle multiple users through one platform.

II. LITERATURE REVIEW

The survey regarding this application includes information gathering from various sources. These sources include some of the car showrooms and service centers, various related web sites and similar projects developed previously. IEEE papers are used for clearing the concepts and algorithms included in this project. E.g. Google cloud messaging paper for push message services, Dijkstra's Algorithm for finding shortest path algorithm, etc.

Mazda company had developed similar kind of application. Mazda Motor Corporation is a Japanese automaker based in Fuchū, Aki District, Hiroshima Prefecture, Japan. 'MyMazda' was the application developed by this company. This app consisted of features like giving user car info, locating and mapping of service centers, set appointments, etc. References of above applications and additions of some extra features are made in the proposed system. Extra features include-

(1) Navigation to the service center using gps services.

(2) Request for all the services other than just appointment.

(3) Accessories chart.

(4) Set alarm.

(5) Package indicator.

III. PROPOSED SYSTEM

Purpose-The purpose of this project is to provide any two-wheeler and any automobile servicing system more effectively than the existing system. There are some disadvantages of the existing service center management systems. These disadvantages are overcoming by the Vozilo Care. And it can be made handily available to every person. Previously people could not get help or locate the service centers conveniently in case of their car break-down or any other emergencies. Thus, Vozilo Care is proposed to assist people and fulfil their requirements easily.

IV. METHODOLOGY

Vozilo Care- an android application will work on all android devices. The main purpose of this application is to make work ease for the users who uses their vehicles on daily basis. During our research we found out that there is such existing android application in real world. Our servicing system is more effectiv than the existing system. There are some disadvantages of the existing service center management systems. These disadvantages are overcoming by the Vozilo Care. Thus we are interested in developing an application which would surely make a difference to the digital world.

The application will work in following way:

I. User have to Log in or Signup in the application.

II. The user will select desired service center from the list.

III. On selecting the service center, the profile will be displayed.

IV. User have to select service type that either they want roadside assistance or home assistance or simple servicing facility for their two-wheeler or four-wheeler.

V. Respective profile of each section will display information about the services of that specific user account.

VI. There will be an option of manage profile from where user will send request to the service center and wait for their approval.

VII. The approval or disapproval sent by the service center will be displayed on this page and the approved content will get uploaded on respective accounts of the service provider.

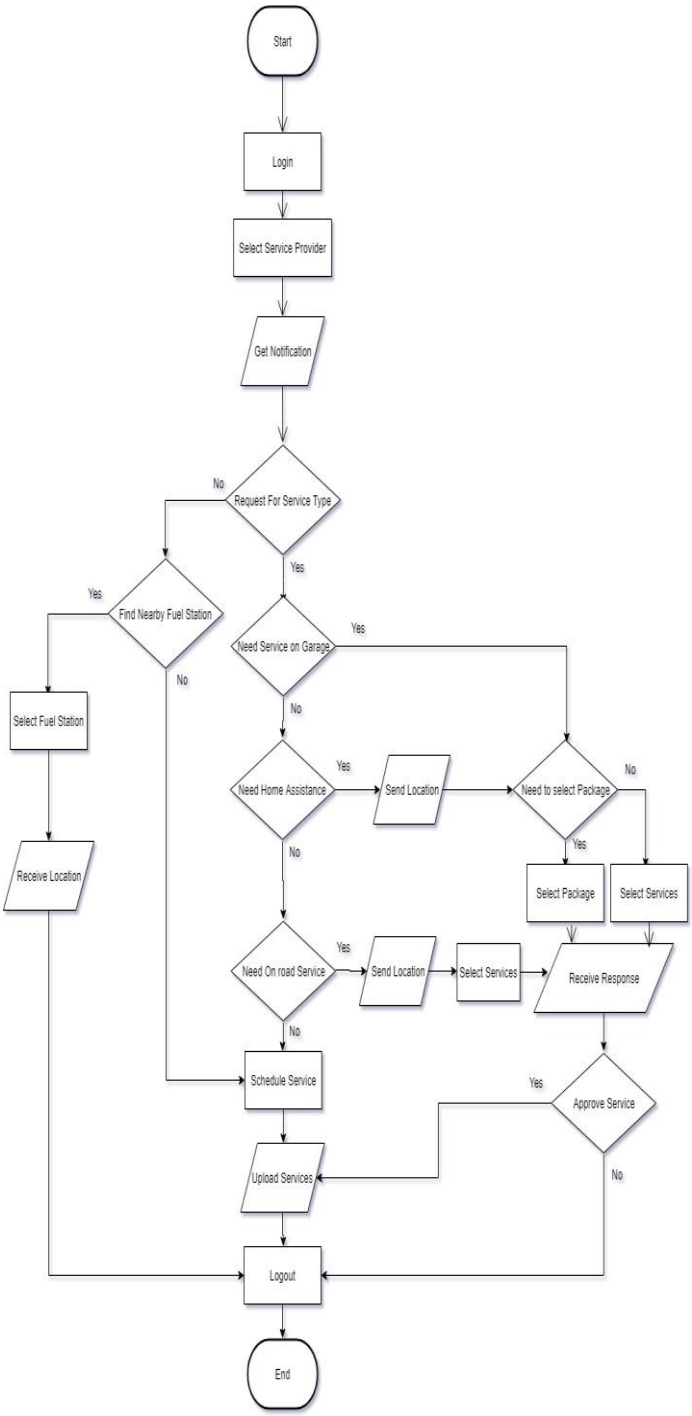
VIII. User will also be able to schedule service type from here by choosing specific date and time, so the desired scheduled post will automatically get uploaded at specific time and date mentioned to the account.

IX. The clients will have option of choosing the different fuel stations (filling stations) for their vehicles.

I. The clients will have option to select the Package type related to their servicing requirements, which they wish to receive from the service providers.

X. Similarly, service providers can handle multiple users and their accounts through one application.

Flow Chart of our application is as follow:



V. SPECIAL FEATURES

The idea to this application was inspired by one of the existing application named Peepip which allow service providers to handle multiple accounts of users. In that application user can schedule services of their vehicle through this application. Thus, inspired by that, we are converting that idea in a way that would be helpful to automobile industry for handling multiple accounts through one application. Thus, it makes our idea of the project unique

Unique Features:

Approval /Disapproval: This is one of the main feature of the application as service provider can approve or disapprove the content that has been sent to them by user and decide by themselves what they want to service on their vehicle specifically. This will build the good communication between user and the service provider and will help them to work efficiently.

- Scheduling: This feature allows user to schedule services on desired account by selecting the types and scheduling it at specific date and time. After scheduling, the required services will get uploaded automatically on scheduled date and time. Thus, service providers can schedule the services for multiple users easily which will be posted automatically whenever required.

- Packages: There is also a feature of packages which will be chosen by clients for their vehicle which they want to service will have sent for approval or to be uploaded on their accounts. One
  can choose this package in which they are interested.

- Criteria: The client can also set criteria about how much active they want their accounts to be. They can set number of services they want per week or per month accordingly. This will help service providers to know what client's requirements are.

- Multiple Users: As service providers handles multiple user accounts, through this they will be able to do it through one application easily. They can easily move from one user's accounts to others and handle it through one application.

- Reminders: In this module system will generated reminders to the user about vehicle service date from the information given by user.

- Reports and Statistics: Tracking maintenances, services, costs, expenses of your vehicle. Maintenance History of vehicle. Cost statistics: cost per category (refuel, bill, services). Cost/distance, cost/year, cost/month, cost/day, consumption etc...

- Multiple Vehicle Addition:
  Two-wheeler: In this module user can add two-wheeler vehicle in the system according to fuel type, manufactured company, etc.
  Four-wheeler: In this module user can add four-wheeler vehicle in the system according to fuel type, manufactured company, etc.
  Multiple axial: In this module user can add multiple axial vehicle in the system according to fuel type, manufactured company, etc.

VI. SYSTEM FEATURE

1. Notification: Used to notify user of the service response

2. Vehicle Catalogue: List of the vehicle detail and their info.

3. Push Message: Used to inform user regarding the offer and product

4. Alarm: Used to set Alarm of the next servicing, instalment date, etc.

5. Mapping: It is use to map nearby service centers and fuel stations (filling stations).

6. Service Request: User request for services provided by service center.

7. Package Indicator: Used to show the monthly package systems.

8. Dealer and Personal Information.

[A]Functional Requirements

- Admin authentication using user id and password.

[B]Non-functional Requirements

- 24 X 7 availability.
- Better component design to get better performance.
- Flexible service-based architecture will be highly desirable for future extension.
- Ease of Use- flexibility, performance, quality.
- Security- Privacy, Confidentiality, Integrity, Authentication.
- Comprehensiveness- Transferability, Divisibility, Standardization, Maintenance.

VII. CONCLUSION

The proposed paper shows the flow, structure and working of the Vozilo Care system. Vozilo Care is user friendly i.e. easy to use. It is free of cost on android store. Thus, it is a time saving as well as cost efficient application. This application is used to help the user for the management of their vehicle. Monthly report will be provided to the user on timely duration through this application so the user can track their

maintenance report of the vehicle and track servicing date of the vehicle and many more. So, we can conclude that the proposed system can be used to reduce human efforts and luxuriate human lives, hand in hand, with the modern technology.

REFERENCES

[1] "A public safety application of GPS-enabled smartphones and the android operating system"- Systems, Man and Cybernetics, 2009. SMC 2009. IEEE International Conference-Whipple, J.Inf. Syst. Eng. Dept., Southwest Res. Inst., San Antonio, TX, USA Arensman, W. ; Boler, M.S.

[2] "An improvement of the shortest path algorithm based on Dijkstra algorithm "Computer and Automation Engineering (ICCAE), 2010 The 2nd International Conference on (Volume:2). Ji-Xian Xiao Coll. of Sci., Hebei Polytech. Univ., Tangshan, China FangLing Lu.

[3] C. Persson, G. Picard, F. Ramparany, A MultiAgent Organization for the Governance of Machine-to-Machine Systems, International Conference on Web Intelligence and Intelligent Agent Technology, 2011.

[4] "Developing an Android based learning application for mobile devices", Telematics and Information Systems (EATIS), 2012 6th Euro American Conference, de Clunie, G.T.Fac. de Ing. de Sist., Computacionales, Univ. Tecnol. de Panama, Panama City, Panama Serrao, T.; Monteiro Braz, J.R.-. Serr o, T. Rangel, N. Castillo, A. G mez, B. Rodr guez, de Barraza, Riley, J.

[5] "Implementation of Cloud Messaging System Based on GCM Service". Computational and Information Sciences (ICCIS), 2013 Fifth International Conference. Penghui Li Transp. Manage. Coll., Dalian Maritime Univ., Dalian, China Yan Chen; Taoying Li; Renyuan Wang; Junxiong Sun