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Android Based Bike Service Rating System

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ABSTRACT: The problems related to the bike owners are considered as a problem statement in our project such as Servicing of bike, buying new spare parts, roadside assistance for there pair and maintenance of the bike. And also the help for the garage owners as well as mechanic to enhance their services through this application. The existing problems related to the repair and maintenance of the bike were too much time consuming so that costly too and were panic for the biker if he is out of station or at remote location. So we are trying to help biker, garage owner and mechanic by coordinating them with the help of this application.

I. INTRODUCTION

. The new Era of the web and IOT is making the life of people as easy as possible but now a days the problems of the bikers must be understood there must be any platform or an application through which he can avail the services related to the bike. This is an application for Bike and bike spare parts store that has list of various bike with their features. The bikers can also be provided with the real time information of the servicing garage owners and the contact details of the nearest garage. The spare part shopkeepers as well as garage owners can register their shop on the portal. bikers can request for the help at remote location through bikers portal if any emergency regarding maintenance or repair of bike. Travelling from one place to another is an issue because of raise in the population causes in the increase of the vehicle use like bike.

Due to this, carbon emissions are being released in large amount which is harming the environment. And also because of increasing number of personal vehicles mostly cars, the parking problems are increasing and also pollution is rapidly growing. People are also suffering from high travelling costs and also fuel prices are rising.

In order to overcome these problems we are finding different solutions on it. Biker portal is an android application in which people will share bikes to travel distances which goes along the same route of the bike user. Bike Pooling is a pick-up and drop-off service provided to the users according to the needs. Hence number of vehicles will be reduced so that traffic congestion problems, air pollution will be reduced. Bike leasing also helps People to share their travel expenses that is fuel costs which will also be useful to save fuel for future use as fuels are getting decreased day by day due to large amount of consumption.

In this application Aadhar card link will be added for getting user's true identity. It also includes Google maps for tracing real time navigation. This application is useful for booking bikes from home also. Not only leasing bikes service this application will also help the biker to purchase any products for bikes through this application by placing an order to the spare part owner by choosing it from the application.

This application connects three main peoples together they are Biker, Garage owner and the Spare parts shopkeeper. Which enable everyone to enhance their services and provides services at fast as possible and biker will get that services at their door step on one click only at affordable rates. So we hope that this application will definitely overcome the problems of the bikers as well as will help the garage owner and spare part seller to increase their sell and its service too.

1.1 Problem Statement:

The emergency failure of the bike at any remote location. In Cities and the rural areas the bikers are faced with any technical problems related with the bike maintenance or repair. To repair the bike or to buy products related to bike he has to search for the garages or spare part stores. Bikers are unknown to new places. Bikers do not have any chance without repair of the bike or get a new bike on lease till the bike get repaired. So that he



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need to seek for the garages which provides the bikes on lease so that they should have an application which helps in searching the nearest garage which provides bikes on lease. So this is the problem which we have to overcome with the help of the android application

1.2 Motivation of the Project

The motivation of this project is from the government scheme "Digital India". The main goal of this project is to develop a system to target crucial problems, time and cost and service in time.

1.3 Objective:

- To develop a Web/Android application for the Bikers assistance.
- Bringing the flexibility within the services of the bikers.
- Increase in the Customer Satisfaction of the bike manufacturing/selling company by delivering the services within time and transparently.
- Coordination between Biker, Garage, Mechanic.

II. LITERATURE SURVEY

1. Secure Remote Diagnostics of a Vehicle Using UGP Rohit Mehra, Balakrishnan Paulraj² and Arup Mukher, IEEE WiSPNET 2017 conference.

Diagnostics of a vehicle has been predominantly done at the garage (service center). Thus, it was always considered to be over a "trusted" access. In the recent past the trend is to move towards making this diagnostic available to a remote location

i.e. over an untrusted network for various

features such as predictive diagnostics, ADAS (advanced driver assistance systems), automated driving etc. Currently there are proprietary solutions (specific to OEMs) available for remote diagnostics and secure vehicle access.

2. Maintenance Spare Parts Demand Forecasting for Automobile 4S Shop Considering Weather Data, Yang Liu, Qi Zhang, Zhi-Ping Fan, Tian-Hui You, and Lu-Xin Wang, Citation information: DOI 10.1109/TFUZZ.2018.2831637, IEEE Transactions on Fuzzy Systems

Maintenance spare parts demand forecasting is an important foundation of maintenance spare parts inventory control, which is an essential daily work of managers of automobile 4S shop. Although the existence of the effect of weather conditions on maintenance spare parts demand has been verified, the study on maintenance spare parts demand forecasting for automobile 4S shop considering weather data has not been found. In this paper, a novel method is proposed for maintenance spare parts demand forecasting for automobile 4S shop considering weather data.

3. Optimizing Bootstrap Method to Improve Forecasting Accuracy in Business Jet Spare Parts Supply Chains, Roseline Ezekwesili, M. K. Shahzad, A. Baboli, R. Tonadre

Having products available when customer wants them keeps customers satisfied and businesses more competitive, especially in business aircrafts industry where clients are paying considerably higher for flying than in a commercial airliner. So, all parts needed for normal operation and maintenance must be readily available to ensure business flights. As there are business aircrafts' spare parts which have lead times of up to three years, to ensure that the right parts are available at the right time in the right volume and at the right location, forecasts must be made of anticipated customer demand.

4. Coordination in Spare Parts Supply Chains, Philipp Salmann, 2016 International Conference on Collaboration Technologies and Systems

this research will study the characteristics of spare parts supply chains, empirically analyze various instances of real life spare parts supply chains and investigate how coordination in current spare parts supply chains can be improved. The main

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contributions of this research will be a novel classification system for differentiating classes of spare parts supply chains based on their observed coordination characteristics and correspondingly providing guidance for improving coordination deficits in these classes.

III. PROPOSED SYSTEM

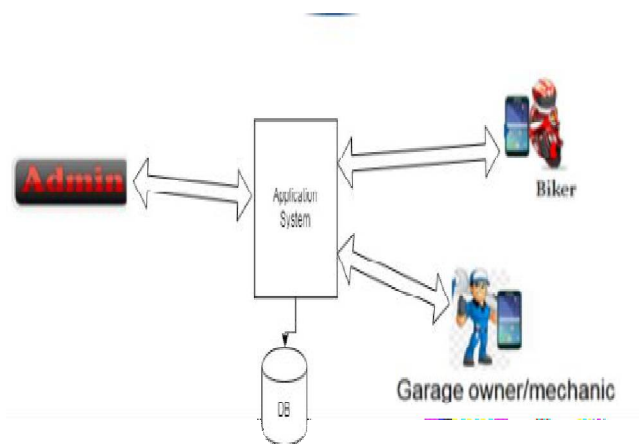


Fig 3.1: Block Diagram

Fig shows the System architecture of the Biker Portal.

The system is made up of different modules where the android application will include the three modules

1. Biker
2. GarageOwner
3. Admin

Biker:

Biker is allowed to use this application for different services like to purchase the spare parts of the bike, to take bike on lease, or to take help in bike maintenance emergency with roadside assistance service. In this module the bikers required registration first of all to the application, this required the information like, personal details, aadhaar card no, bike passing no, address etc. after registration the biker can avail the services of the portal. Biker can rate the service as good or not with star.

Garage Owner:

This module is for the garage owner in which the garage owner have register first of all, after registration he can use it for their business purpose by log in to application, Garage owner can manage their spare part inventory in this application, and also can view the bikers request for purchasing the parts. Garage owner can view the service rating.

Admin:

Admin has the authority to do the administrations tasks such as verification of the bikers, application related query solving etc.

3.2 Flow Chart:

A flowchart is a visual representation of the sequence of steps and decisions needed to perform a process.

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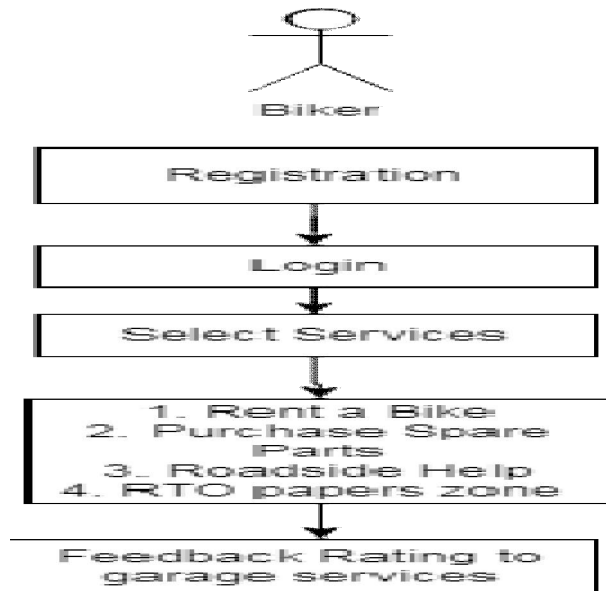


Fig 3.3 : Biker flowchart

Each step in the sequence is noted within a diagram shape. Steps are linked by connecting lines and directional arrows. Here is the Flowchart of Biker and the Garage Owner

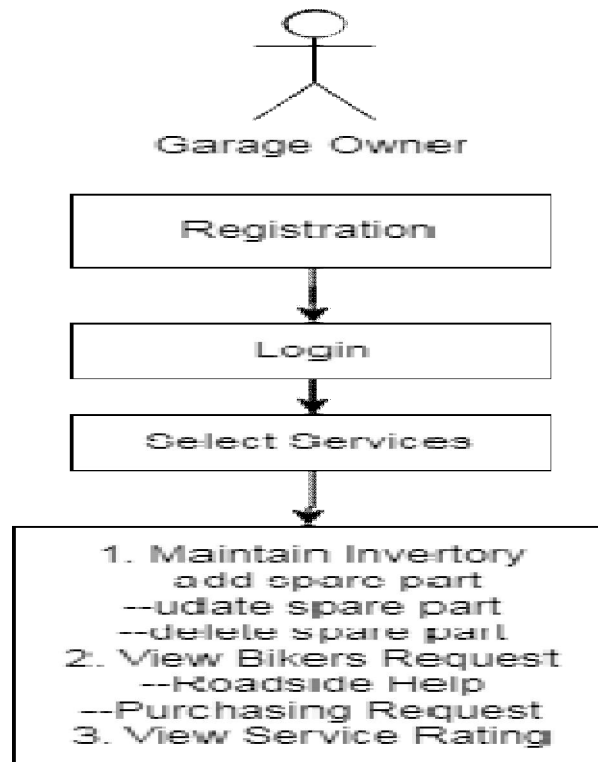


Fig 3.4: Garage Owner Flowchart

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IV. OTHER SPECIFICATIONS

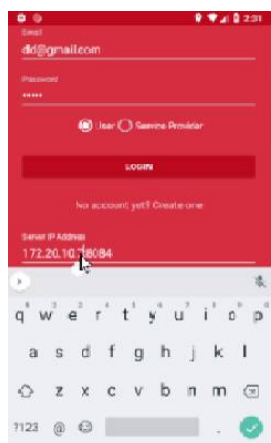
4.1 Advantages:

- Biker does not have to go manually to purchase the product, this saves time as well as human effort of the user.
- Business improvement due to timely services of the garage
- Biker gets panic free services at doorstep as well as on road
- Real time navigation system is used i.e. Google map to locate the nearest garage as well as biker's location.
- Garage services are rated as per their service by the biker so that there is more improvement in the services by the garage owners to make their garage as a five star rated garage as per point of view of the bikers
- Bikers having more options to get these services.
- Bikers can make their choice of the product to be purchased
- Application is more comfortable for using.
- This is Most Wanted application for the bikers
- This application is very useful for the garage because he can easily rent his bike to any needy biker
- A Biker in an emergency is now out of frustration due to this application.

3.2 Applications:

- This application has many uses.
- For Any Biker
- For Any garage owner
- For any Showroom Owner
- For startup of the bike rent business

Experimental Results:

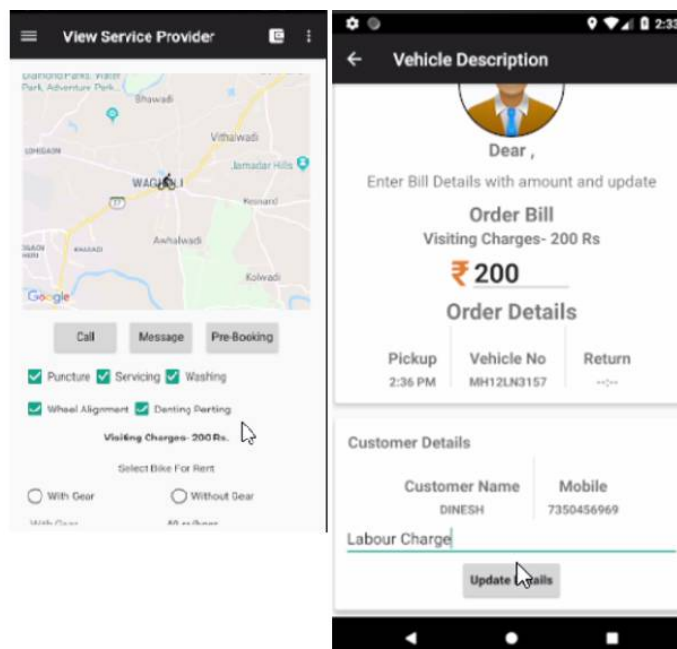
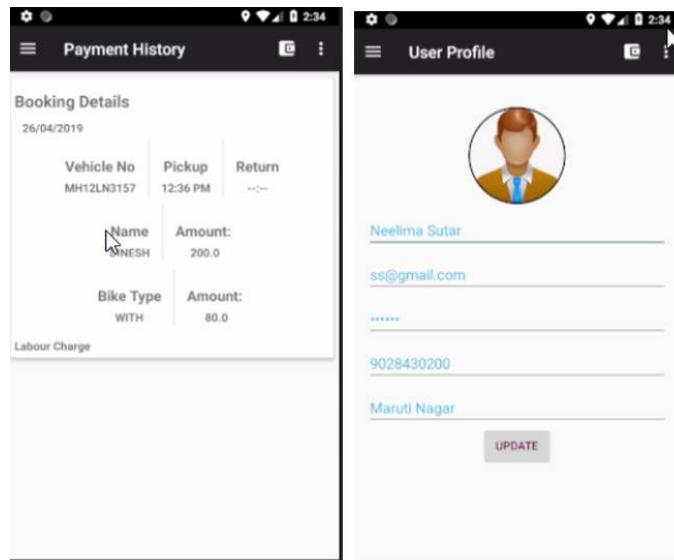


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V. CONCLUSION

So with the help of the “Biker Portal” we are trying to be apart of Digital India to help biker, garage owner and mechanic by coordinating them with the help of this application. Which brings the coordination among company, biker, garage owner, and mechanic. Useful for all bikers. Smart application for the bikers. This application will be the best application for all those who use it for the bike related problems.



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3. Optimizing Bootstrap Method to ImproveForecasting Accuracy in Business Jet Spare Parts Supply Chains, RoselineEzekwesili, M. K. Shahzad, A. Baboli, R. Tonadre Optimal Skill Assignment with Modular Architecture in Spare Parts Supply Systems ,Maryam Al-Khatib, HasanHuseyinTuran, Andrei Sleptchenko, 2017 4thInternational Conference on Industrial Engg. and Applications.
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