A STUDY AND IMPLEMENTATIONOF SMARTPHONE APPLICATION FOR BIKEOR CAR SERVICING SERVICES

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Abstract: **Nowadays, it is highly possible to adapt mobile computing in various applications. The portability, open source nature of smart phones and android development platform has made the development of application software for various environment as handy. Smartphone applications are resulted in paper less work, easy to use and time saving in nature. The wireless communication technology of smart phone enables. the information transfer from the current client to remote database server, where ever the network range is available. We want to design an application; it helps the people or customer around us get their bike servicing. This application designed for the care of people and their time. It manages the time of various customer and book a slot for servicing in service center. More real-life examples are like that, one person has go for his regular work but he or she doesn't have proper time for bike servicing so, they have to take holiday from their work.so this app basically help them in saving their time and work. it helps them by saving their time like it shows the status of the bike servicing percentage.**

Keywords: Android application, server, notifications, push messages, database, GPS.

1.   Introduction

If someone wants to make service of their vehicle, they need to call at Service Center or personally visit and then book an appointment. This consumes precious time of the customer. Also if the service center cancels their schedule, the customer does not come to know about it, unless customer goes to the service center. The objective of this project is to build a system that will ease the process of online booking appointment of a two or four wheeler at the service center for servicing. The customer will book the appointment through his/her mobile phone. The service center will come to know the number of appointments customer has to attend whole day. The system will save customer's as well as service center's time. It will save the   paper work. The system will be useful for customer as they can book appointments anytime from anywhere.

we have seen over the year that the problem faced by our various customer is that if any one has to get his servicing done. they have to waste their full day time. This is common reason by our customer, like that if they visit the service center and if the slot of servicing is not empty then also they have to wait. Sometimes they have to travel for and it. The servicing is not done then an issue will happen again for their time. So, the main problem is their time and for that purpose only I come up with a app to reduce the burden and save time of our customer. The app provides the benefits of saving time and it helps them by providing basics details of their and their vehicles and also save time. It also helps people to go for easy process for visiting the service center and get their service done on time. It also showsnearby all the service center and customer rating. Our project is an efficient and user friendly android mobile application for bike servicing. The application will be installed on the user's smart phone. It intends to provide an interface to the servicing center who will require minimal details to input for marking the bike status.The appointment confirmation is given by a SMS Apart from that, the application would support strong user authentication and quick transmission of data via the web service. Service center will login to the phone application and get connected to the server. After login, they will take request of customer using mobile phone. In his application customer can register with their name, email, password, engine no., bike no., chassis no., if the customer wants to see their bike servicing status then they can see it by the application after entering the authorized user id, and password. Service center can also upload the any notice through the mobile which is visible to the customer by their own smart phones. Moreover, storing and retrieving of information is easy. So work can be done speedily and in time.

2.   Literature review

Before developing this app I have taken deep survey through various service center by visiting them and had a deal with them that if they are getting 5 customers a day so, by the help of my app they can get up to 20 customers and they have to pay me a token or commission charges of 20% each customer who visit their service point through my app or if they want to deal with me that their old/new customers register my app they have to pay me a token or commission charges of 5% per customer so, by this my policy of app by this, I can earn . This app is totally free on iOS/android window[1].

Royal Enfield provides online bike service. Royal Enfield App is source for anything and everything customers need to know about Royal Enfield. This app allows customer to:

1. Browse through the entire product portfolio.

2. Enquire about new bikes.

3. Book a service appointment.

4. Provide feedback regarding Motor Cycles.

5. Book a service appointment. Bajaj provides the information about bike service stations.Also provides the genuine parts dealer's information. Customer can communicate particular service station by calling. They can't provide online booking service facility also they don't have their android application. Hero MotoCorp provides online booking service facility through website. They provide only authorized dealer information. Customer can communicate particular service station by calling. They don't have their android application. Mahindra Bikes provides only information of their authorized dealers and service stations. There is no any facility for online service booking or scheduling. Customer can contact to particular service station and schedule their appointment. Honda Bikes provides only information of their nearest authorized dealers and service stations also there is no any facility for online service booking or scheduling. Customer can contact to particular service station and schedule their appointment. Application developed by this company [2].

 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. 3. How does it work?

The purpose of this project is to provide bike, car or any other automobile servicing system more effectively than the existing system [3].

There are some disadvantages of the existing service center management systems. These disadvantages are overcome by the automobile service center management system. 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 SCASS is proposed to assist people and fulfill their requirements easily. The proposed system consists of three modules: The Customer, The Service Center, and The Administrator. The customer has to register into the application using Google+ or Facebook or filling the registration form. After registration, the customer will receive a username and password. After logging, the customer has to select a filtration type. The filtration is done on two bases: Area wise and Specialty wise. After selecting the filtration type, the Service center list will be displayed. The customer can select any particular service center and view his profile. Also the customer can view the Service Centers schedule and look for an appointment according to his convenience. The customers then send a request for an appointment. The Service Center can either accept the appointment or reject it. The database will get updated accordingly and the customer will get a confirmation message. The add-on to this system is that the customer will receive a notification 2 hours before the actual appointment. This will be very useful in case the customer tends to forget the appointment. This android based Service Center Appointment Scheduler System (SCASS) will enable customer and service center to schedule and manage their appointments[4].

3. Propose Enhancement

a. Working Architecture

In this application, first, the customer has to sign up using their mobile number and other details. Then the user will get a login id so further they will just login for their account. After login, main menu or home screen will appear where the user can see the displayed online booking slot in this slot required details are filled bike company name, bike no., engine no., chassis no.,and book their appointment The user can either select their items from the displayed list show bike or car status, repair time, and see their total cost required for servicing. The service center will allow the user to finalize their time to our bike and car and gets to final payments. Then the user will get a screen where they will have to fill the payment option details like the card payment, paytm, net banking, phone pay, google tej, OR the user can just select their app account which already has the details of the user given at the time of signing up. This app will work on the basis of cash on delivery also.
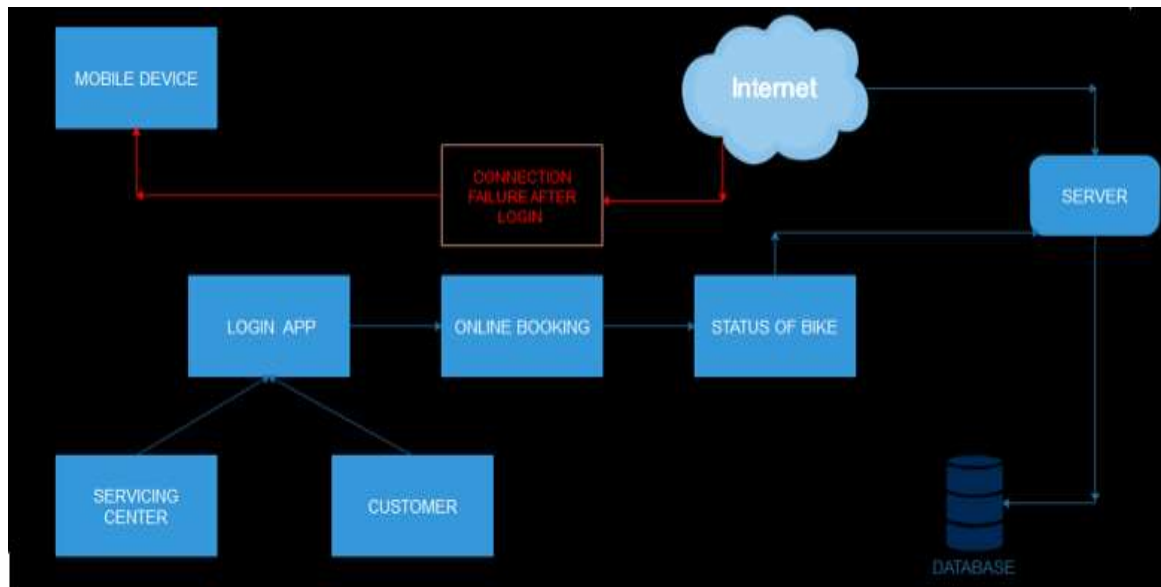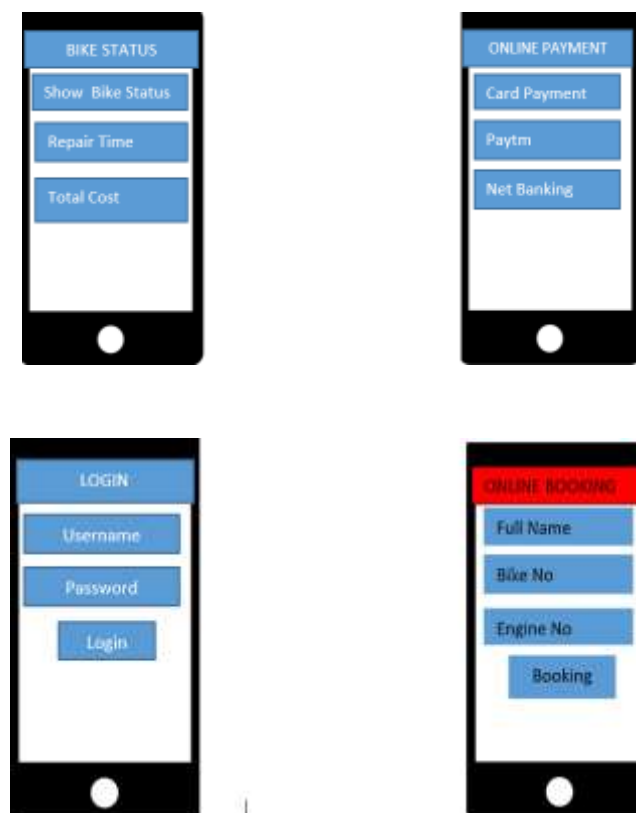
Fig 1.0 Project overview

FIG 2.0 GUI

b. Advantages

1.   It saves time of our customer by providing a slot booking of their choice or availability of time.
2.   Service center locator like opening of this app provides all by near service center and their customer ratings.
3.   Status of bike repairing that how much percentage the bike has been repaired or completed in notification panel of the app.
4.   Service center send us a notification through my app, msg, that your bike servicing has been completed. You can get it by service center.

C. Disadvantages

The main drawback of this system is that, it is a website and it requires a very good internet connection as loading of web pages may take a long time. Our system will enable customer and service center to schedule and manage their appointments online. Also overcome the disadvantages of existing.

4. Conclusion

The service center system is presented which will greatly reduce the workload, save time for bike servicing. All we have to download our app then we have to register or login for our existing customer and then the app will show all the nearby service center of their choice and provide their basic details like- Owner of vehicles, Vehicle registration number, engine no. Chassis number, Battery number, Contact number, Alternative number, then after providing the basic details, this app will automatically provide an acknowledgement number with a barcode. When a customer visits the service center. The staff of service center will scan the barcode and directly guide for the slot number of your servicing. It also shows the percentage of my bike being repaired. It allows to chat through our app with service team of service center. The app main motive is too save time. It's very resource app from different platform like iOS/android/windows. It is app development for better and eco-friendly with use.

References

1. Alvarez, A.: In-depth Look at Google Android mobile phone software, http://techzulu.com/
2. Broersma, M.: Android invades hardware, http://www.techworld.com/
3. Coulton, P., Edwards, R.C., Clemson, H.: S60 Programming: A Tutorial Guide. Wiley, Hoboken (2007) Google Scholar
4. Meier, R.: Professional Android Application Development. Wiley, Indianapolis (2008) Google Scholar

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