

Mechanica: An Android Application

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Abstract- *Mechanica is a Google API based android application which is used as a handy automobile repair locator. In case of any sort of automobile breakdown emergencies our application comes in handy as Google maps is integrated in our application. Overall the application is a time saver and can handle emergency situations with ease as we provide a lot of features/facilities which helps the users to a very large extent. Our main aim is to save time and money. We maintain consistency in pricing all over the region where the service is available hence saving a lot of money and effort of the customers. Liquid money is a bad idea as we prefer going along with the ideology of "Digital India" and hence we are limited and confined to only digital cash. This way we can keep a track of each and every penny of our transactions and keeping a clean record for the income-tax department. Staying clean in the market helps develop customer trust. It will be used by travellers to locate the nearest mechanics in case of vehicle breakdown emergency, and also it will be used by mechanics to carry out their business in a digitalized manner.*

I. INTRODUCTION

Mechanica is a type of small module of urban clap you can say for your better understanding. This is an application for an emergency service. Basically, we provide service for customers stuck at any coordinate in the functional area. Any kind of automobile breakdown assistance is given on road at any particular time depending on their location from the nearest automobile repair center. The charges will be nominal as per the company norms. The service is available for each and every individual and is totally free of cost to use our service except the inclusion of usage of their required amenities through our application. Breakdown assistance not only means assisting the customers with the breakdown but providing them with their required service to help them overcome the issue hence solving the problem of the difficulty faced the customers to locate the service they are looking for in an unknown area/region which they are not familiar off. The vehicle should be registered along with the driver details in our database via application which will help us locate the exact position of the user which will help us give out precise results to the user via application. This process is done by the application sign-up interface created by our developers to maintain a register of entries of our clients. Clients

once registered can use our service anytime, anywhere and is hassle free for lifetime. Once the user is registered, users current location is showed in the application where the client needs help/assistance. This intern helps us by providing the requested data of the user to provide him with appropriate information regarding where he can find help. The user gets the locations of the nearest automobile repair experts whom he can contact for assistance. Now the user will have two options. Either he has to go to the nearest automobile repair experts or he has to call them to his point of breakdown. If the automobile is a two-wheeler then he can take it to the nearest automobile repair expert else the vice-versa can be done. Here we save our clients time, hardwork and money. Since the application provides the ease of locating the nearest automobile repair experts, it drastically reduces the users hardwork hence developing a stress-free environment in a new and unknown area/region. Similarly saves time as well since the entire problem is solved on a single touch without any hassle to find the appropriate nearest automobile repair center. Providing an outstanding service to people and shining in the service providing industry. Now the question arises, how does the app save money ? So the answer to this question is, it solves the problem of bargain and standardises all the service charges throughout the region it covers. The charges are nominal as per the company policies and no repair station has the authority to demand more than what is currently billed through our application. This way our application is more reliable and effective. Only digital cash is accepted via digital transaction applications which keeps a perfect record of all transactions and helps the customers in developing trust and reliability.

- The solution to this conventional method of bargaining is to standardize the rates of each and every service provided by the mechanic.
- This can be achieved by approaching to every mechanic possible and integrating the lowest possible rate into our application which will be very convenient to the users to pay the specified rate as mentioned.
- Our application will provide all the issues that can occur in a car/bike which will be checked by the mechanic based on which the customer will be billed.

II. PROBLEM STATEMENT

- To solve customer inconvenience regarding the prices specified by different mechanics. To guide the customers to nearest, verified and trusted mechanic via mechanica.
- Knowing how your vehicle works and how to identify common problems is a good beginning
- It's also important to know how to choose a good mechanic, the kinds of questions to ask, and your consumer rights. This kind of information may help you keep a lid on mechanical mistakes.

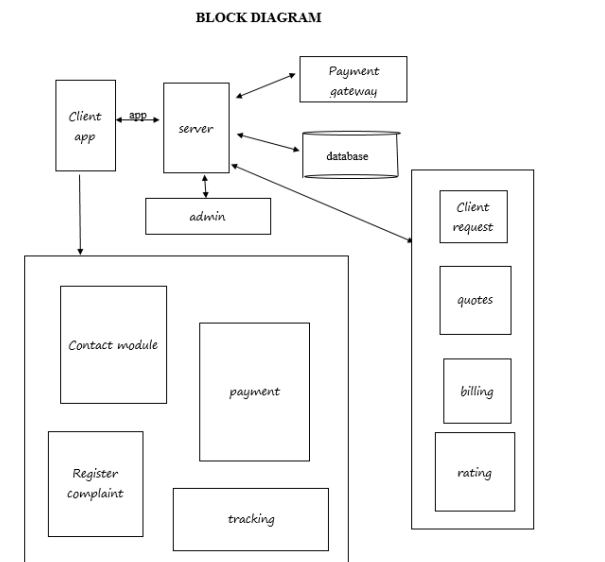
III. LITERATURE SURVEY

We start off our journey with information gathering with respect to our field. As beginners we lack knowledge of automobile service industry so we step up to educate ourselves in this respective field by physically getting involved in the ground work as one can say operations by approaching each and every automobile service stations individually and talking to the working class staff regarding all the problems that can occur in a specific automobile and grasping knowledge in all possible ways. Along with this approach we had to work on the application side as well to implement the knowledge we have received. Keeping a small module of Urban Clap for reference we started the process of information gathering again with the help of Google Search for all the methods we can use to implement our ideas in the application. Google Developers India is a page on YouTube which helped us a lot to implement our ideas in the application. As in what is to be done, how it has to be done and what is to be done. It was a regular process for us to get educated and implement. This improved the application inside out day by day. Our survey about the new automobiles and their problems grew day by day as a result it gave us more control about our work as in what we are doing, our aims, goals and vision. Approach to maximum mechanics possible to settle for a particular price along with the issues list and to convince them to join hands in order to create a platform.

IV. PROPOSED SYSTEM

Providing a hassle-free and free to use android application for any kind of vehicle breakdown is our proposed project. We provide a very simple user-interface which is easily understandable by the users. Our application provides breakdown assistance along with breakdown services for any/all kinds of automobile in India. Through our application we provide each and every kind of service which could be required by the automobile at any time, anywhere. The application shows the nearest automobile service station to the user in order to reduce effort of the users and hence save time.

This is done by calculating the distance of the user via GPS from all the nearest automobile service centers. The application provides different options for different automobiles, this makes the search more precise and more efficient for the users. We provide two options for the users, either the user can go to the automobile service station by himself/herself via application guidance or has an option to call the nearest automobile repair experts to their location depending on the type of issue faced by the user or the user convenience. Considering the user has reached the station all the services requested by the user will be fulfilled, this leads to the next functional step of the application that is payment. The platform only supports online payments hence keeping all the records clean which helps the customer to keep a track of their expense and helps us as well to keep a clean records of all the transactions talking place. This resolves the issue of bargain since all the services to be provided have already been discussed as to what price have to be quoted and hence standardising the cost. This builds customer trust and the automobile service stations will not have any delay in their payments. This is the complete idea and construction of the platform. This is a service based platform made in public interest to assist all the automobile users.



V. ASSUMPTIONS

1. To make an application for guiding any vehicle(bike,car) breakdown. Either the customer will be guided to the nearest mechanic via google maps or he/she will have an option of calling the nearest mechanic to the place of breakdown.
2. Tie up with as many mechanics as possible.
3. Issues faced by the vehicle will be mentioned in our application.
4. Payment will be done through our application.

5. The mechanic side application will be used to enter the issues.
6. The amount will be billed in the customer side application.
7. When a customer selects a mechanic on the application for assistance the mechanic gets a notification and when he/she reaches the destination the mechanic again gets a notification that the customer through our application has reached for service. No hard cash will be accepted by the mechanic.

VI. RESULTS

According to our survey, this experiment is conducted to solve real life problem of automobile breakdown. We experienced that people need a service in any emergency breakdown of their automobile in an unknown region (not known by that particular person). We have got tremendous results in this particular area as we received a number of downloads from the users which encouraged us more and more to work towards this cause and resolve any issues or bugs in the application. Coming to the usage of the application, a lot entries have been made till date and a fairly good amount of transactions have taken place since the launch of the application and demand for launch of application for Apple devices have also been raised. We are now working towards development of cross-platform application which works for Apple devices as well. A lot of Android users have received a very good service through our application and have faced zero issues till date with regard to application interface, bugs and errors and the service providers. We have also provided complaint box for any inconvenience for the users to report against the application flaws or service denial or demanding of any extra charges from the customers or any related issues faced by the customers. One of our greatest achievement is that we have received zero complaints till date. We are always here for providing the best service possible for the betterment of our society.

VII. CONCLUSION

We conclude our project by launching the application into the playstore followed by marketing of the product. The marketing phase starts immediately once the product is launched in the market that is playstore in this scenario. The marketing phase goes on and on as there is no end for it until the product itself markets itself without any human effort. As of now to conclude, we finish the basic and initial stages of marketing that is, digital marketing, social media marketing and other means of marketing. Under digital marketing we use Google SEO, PPC and other means, under social media marketing we market our product via paid promotions in

Instagram, Facebook, Twitter, LinkedIn, etc. Other marketing strategies what we tend to use is by approaching each and every automobile dealers to provide them our service free of cost and hence helping the customers to grow the chain as well as putting up stalls to educate about the application/product. By this we conclude our application.

VIII. FUTURE ENHANCEMENT

1. Further requirement analysis will be done with regard to the application. Requirement analysis from the customer side, mechanic side and its implementation.
2. Approaching new mechanics and verifying them to join us in the venture in expanding the chain.
3. This process of understanding new requirements with day to day needs and their implementation, execution and mechanical chain expansion will be done continuously until the application reaches its goal.

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