



## On Road Vehicle Breakdown Assistance

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**Abstract:** On Road Vehicle Breakdown Assistance (ORVBA) goes to be a very good answer for the folks who searching for assist with inside the faraway places with mechanical troubles in their vehicle. It could be the registered public and they may be getting related with the unique mechanic thru the honest utility device. In a current device there are customers who've their personal mechanic database which could be very minimal. And also, they haven't any concept if their cars are breaking down or had any mechanical difficulty in faraway places or any lengthy remote places from their regarded mechanic shops. In a proposed Here the customers of On Road Vehicle Breakdown Assistance (ORVBA) device can look for listing of mechanic at any area or the close by places in an effort to assist them in a surprising state of affairs raised through the mechanical troubles in their cars.

**Key Word:** Assistance, Orvba, Navigation

### I. INTRODUCTION

A lot of people face difficulties getting help when their vehicle breaks down on the road. Many of them do now no longer have any automobile restore provider carriers touch range and couldn't get assist as the auto restore provider middle is probably far from their place This venture to assist folks who are in want whilst their automobile breaks down alongside the roads To make this viable we expand Android Application for consumer help which affords help to the passengers all through their street trips. We recognise how plenty of an effect Android has imparted to the sector of technology. The very truth that Android is open supply has resulted withinside the OS being imparted in smartphones with essential hardware. This in flip has resulted withinside the global of net being accessed via way of means of humans even withinside the remotest of locations and henceforth we will use this utility which may be utilized by humans below misery of a breakdown and combine the numerous feasible help that may be furnished at some point of the trip.

### II. MATERIAL AND METHODS

Travelling to extraordinary locations at a better distance creates a problem of dealing with mechanical or unintentional issues. While travelling to unknown places travellers or drivers may not know nearby services centre or hospital. To solve the scenario be proposed or road driver assistance system to solve certain issues for a above problems. Following are the methods to solve problem.

#### Proposed System:

The assistance provided to the travellers are in wide range where they can enjoy in all-in-one manner. The services provided are made available with the information of the service provider with which the traveller can have access. The access to and the presence of services are made to known to the travellers with Google API for map services.

#### Advantage of Proposed System:

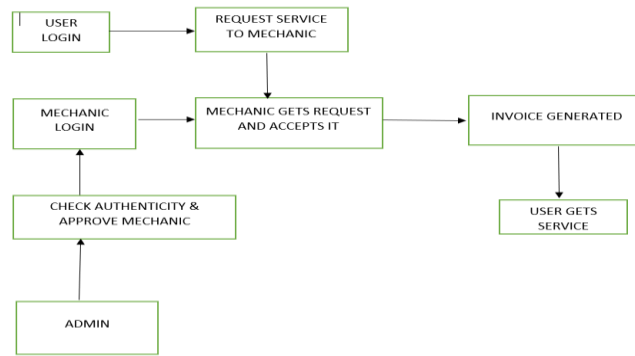
The traveller is provided with more services with more services and support to ensure that they have a good travelling experience.

The traveller will have smooth get admission to the offerings primarily based totally at the cutting-edge area the use of Google Maps Navigation System. The offerings are supplied in a huge variety in order that travellers experience the most gain out of it.

#### List of Modules:

Road Assistance system project comprises of 3 main modules which are listed below:

- ADMIN
- MECHANICAL
- USER



System Architecture

### A) Description Modules

#### ADMIN

- In this module admin can login to view the updates and information about the system.
- Service centre send request for approval to the admin after registering on this application.
- Admin can give approval to service centre. after that service centre will start using this app.
- In this module admin view all about the user and mechanical details.

#### MECHANICAL

- Interested service centre can applied in this website for earning process.
- service centre will be provided with secure registration and login.
- After registration done service centre get username and password using this, they can login.
- A service centre can add the service man.

In this module, service man will be provided with a secure registration and login

An authenticated account is furnished in order that the provider guy and provider centre can without problems get right of entry to their account. This helps the user to maintain their patient information.

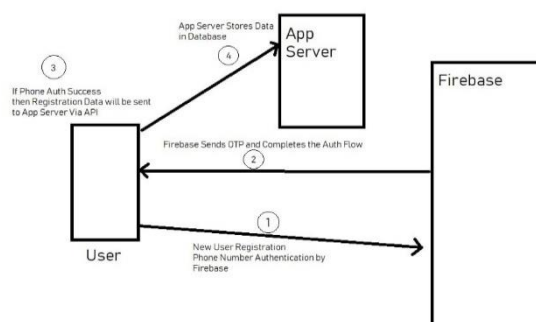
- Service centre get user request in this module after accepting request service centre send the service man to solve problem in current location and after that user can share there feedback also.
- Mechanical module also contains list of services available and charges for those services. so using this details service centre can generate bill, invoice using this module.

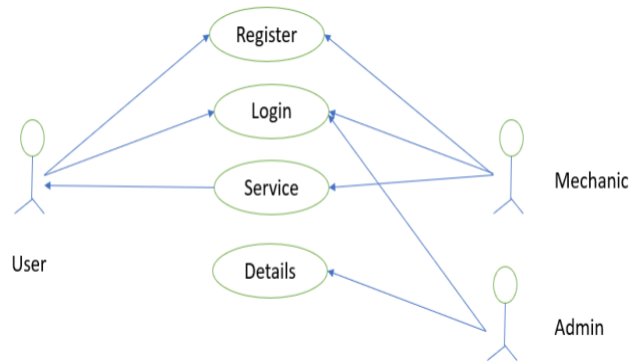
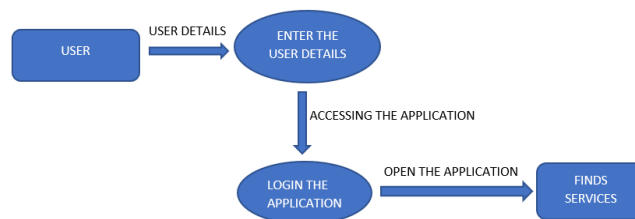
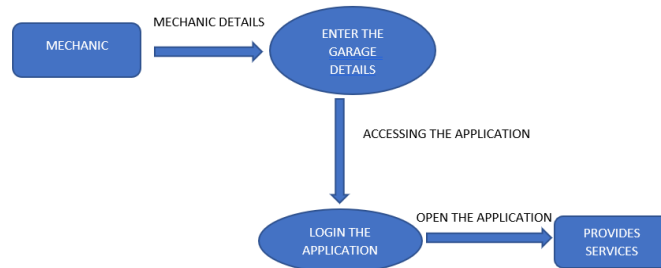
#### USER

- User will be provided with a secure registration and login.
- After registration done user get username and password using this user can login.
- User can view the nearby service centre list who was approved by the admin.
- Then user select the nearby service centre and send the request for service from current location.
- This helps the user to want to emergency vehicle services

#### OTP VERIFICATION

We have use firebase for OTP authentication. In this section user first registered their no after that user get OTP on registered mobile no.



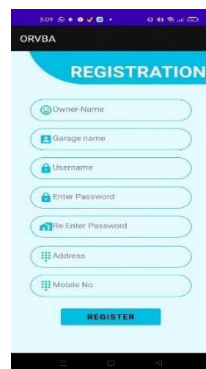
**B) Use Case Diagram****DFD (DATA FLOW DIAGRAM)****(A) User Module****(B) Mechanic Module****(C) Admin Module****III. RESULT AND DISCUSSION****Home Page**

This is a home page. user can start using this application after click on continue button. After that user can choose accordingly for what purpose they have to use this application either as a user or as a mechanical.

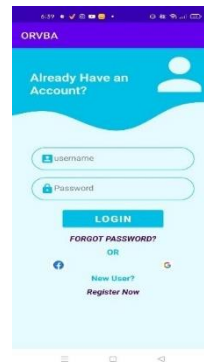


## Mechanic Detail

Mechanic first register on this application after the completion of registration he get username and password using that he will log in. After completion of log in one approval request goes send to admin, after acceptance mechanic allow to use this application



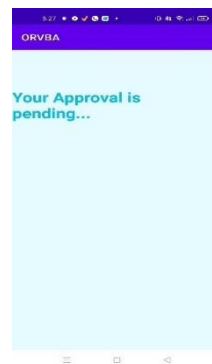
*Mechanic login page*



*Mechanic Register page*



*Approval pending page*

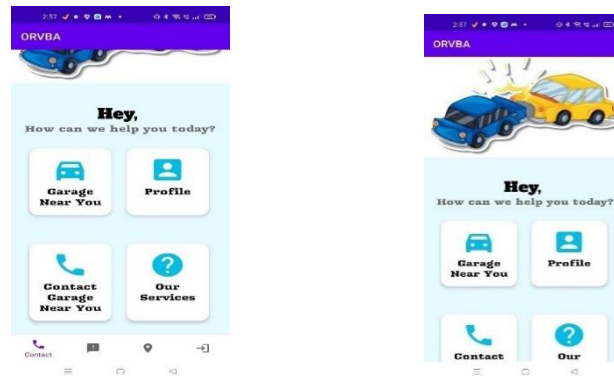


*User Register page*

After Log in user can select their vehicle and take service from mechanic and also find nearby garage location.



## User Dashboard

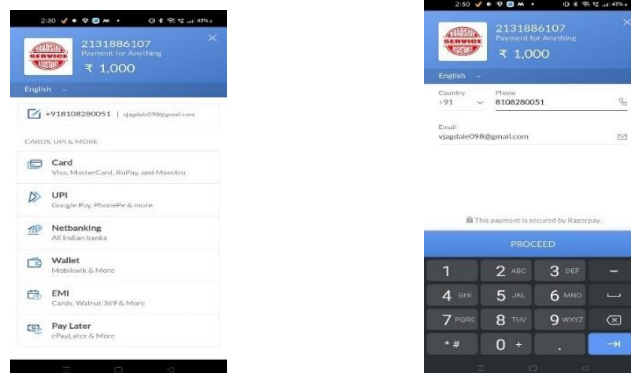


## Our Services

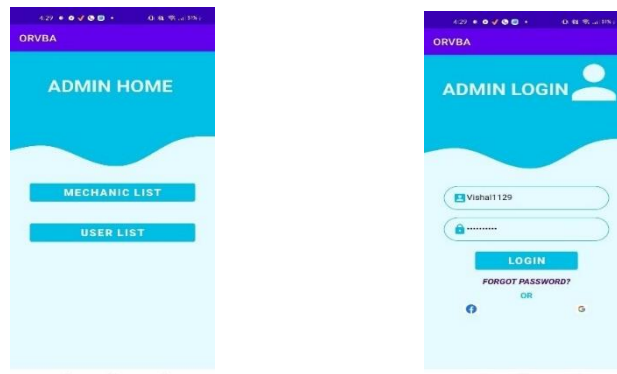


## Online Payment

You also pay online money of particular service to the mechanics, just select service transaction page automatically open.

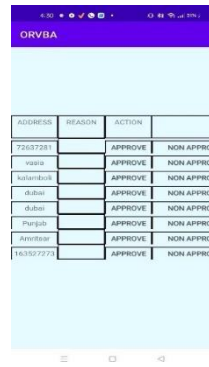


## Admin Details



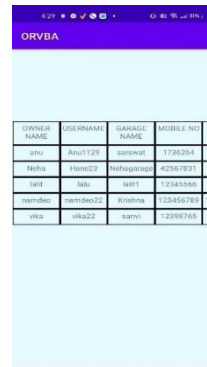
Admin Home Page

Admin Login Page



ADDRESS	REASON	ACTION	
72637281		APPROVE	NON APPRO
72637281		APPROVE	NON APPRO
72637281		APPROVE	NON APPRO
72637281		APPROVE	NON APPRO
72637281		APPROVE	NON APPRO
72637281		APPROVE	NON APPRO
72637281		APPROVE	NON APPRO
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72637281		APPROVE	NON APPRO

*Mechanic Non- Approval list*

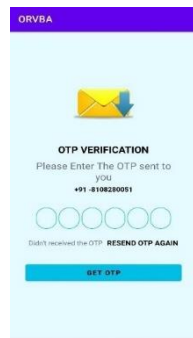


OWNER NAME	MECHANIC NAME	STATUS	MOBILE NO.	AD
anu	Anu123	approved	1736264	1
Radha	Radha23	approved	4254781	8
shri	shri	approved	1234567	12
namdeo	namdeo22	approved	123456789	12
vika	vika22	approved	123456789	12

*Mechanic Approval list*

## OTP Verification

After user Registration process user needs to verify their mobile no and user get OTP on registered mobile no.



*OTP Verification Page*



*Enter OTP Page*

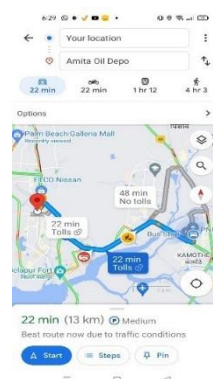
## Nearest garage location

User Can find the nearest garage location from the current location.



GARAGE NEAR YOU
Distance: 0.00223306195670315 Km Garage Name sunilone Mobile No:12345566 Address:New Mumbai
Distance: 8.49774150620242 Km Garage Name:Rockwell Mobile No:123456789 Address:Sydney
Distance: 88.27384318066073 Km Garage Name:offshore Mobile No:12345566 Address:New Mumbai

*List Of nearest Mechanic*



*Location Of garage*

## IV. CONCLUSION

Thus, our emergency breaks down service give better location result. It is easily identifying the nearby location which is very useful to the user who uses it in emergency needs. The application provides navigation to the nearest emergency service as selected by the user. It also provides contact information of these services. This approach makes the user experience very easy and performs better than the existing system in crucial times like this. Our application shall make all possible efforts to locate and direct the nearest service provider to user's location. It helps us the user for mechanical breakdown towing, fuel delivery, flare tire change and vehicle collision etc. Service details can be accessed from the application, which is stored in the server as part of the broader roadside assistance service.

## References

- [1] (Shuiping Wei, 2007), "Research on GPS Positioning Information Transfer Based on Wireless Network, 28(6):589-592.
- [2] " (Murphy, 2008)," United States of America, Commons Ware, and LLC.
- [3] (M.Murphy, 2010). Beginning Android 2, Apress.
- [4] (R.Meier, 2010), Wiley Professional Android 2 Application Development.
- [5] (Burnette, 2009) Hello Android, the Pragmatic Programmers.
- [6] (V. Milanese, 2010) Elect. Rev., vol. 86, pp. 207-211.