

# ON ROAD VEHICLE BREAKDOWN HELP ASSISTANCE SYSTEM

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## ABSTRACT

For those who need assistance in remote areas due to vehicle mechanical issues, On Road Vehicle Breakdown Assistance (ORVBA) will be a trustworthy option. It will be the recognized public, and they will be in contact with the mechanic via the reliable framework of applications. There are users in an established system who each have a rudimentary mechanic database. Additionally, they don't need to know if their cars are breaking down or have any mechanical problems in far-off places from their regular repair businesses. In a highly suggested The On Road Vehicle Breakdown Assistance (ORVBA) system users can look up a list of mechanics in any place or in the area here. The suggested application makes it simple and quick to locate mechanics. Wherever you go, finding mechanics in the suburb is difficult. The primary goals are to improve the service and to streamline the procedure before quickly appointing a mechanic. The mechanic information provided by this method in a single click aids in resolving this problem. The locator here enables you to look up technicians in various places. This online mechanic finder saves time and makes it simple to locate mechanics in different locations. saves you money and effort.

**KEYWORDS:** GPS, Direction API, Geocoding API, Coordinates, Car breakdown provider.

## I INTRODUCTION

Everyone has enjoyed travelling, which is a wonderful experience. We therefore prepare ahead of time, but our cars may experience issues as a result of unforeseen circumstances. The application will determine the closest mechanic workshop or garage based on the user's current location and show all other mechanic shops in ascending order of distance from the user. When a vehicle breaks down, a number of various things can go wrong and result in accidents, injuries, and even fatalities. Getting assistance from someone with extensive practical understanding of vehicles can save your life in such circumstances. The Vehicle Breakdown Service Station Locator provides precise details about nearby garages or workshops in a specific location, enabling users to optimize travel time. The mechanics in the suburb have contributed to our study, and in some instances, we have gathered their data. They offered details like their phone number, the shop's owner, its address, the kinds of services they offered, when the shop first opened, etc. If a user accesses the web application in this When someone uses a software for the first time, they must first register; otherwise, they can just login. After completing the registration process, the user will receive a confirmation email with a link to activate their account. The Dashboard opens after logging in, and the user must enter their location there. The user is presented the stores that are close by based on their input. We locate the closest repair facility.

## II LITERATURE SURVEY

[1] The Authors of "Akhila V Khanapuri (2015)" claimed that the number of cars on the road had increased exponentially. road, the number of occurrences of car breakdown and accidents. Discovering efficient methods to facilitate fuel efficiency without impairing these cars' internal structures and offering a response system to counteract. Accidents is a difficult task. The Android application that is suggested in this paper uses an on-board diagnostics (OBD-II) to monitor metrics including engine RPM, fuel level, and throttle position in order to aid novice drivers with gear changes and in the event of a vehicle breakdown.

[2] The Authors of " KhooJin Sheng (2016)" Writers examined the instances of vehicle failure on the road. The statistics of vehicle breakdowns are anticipated to be discovered through research in order to determine whether this project is beneficial to individuals in need. The following step would be to compare and analyse those already-existing Car Breakdown Service portals or applications to find any problems.

Following planning and analysis, a Vehicle Breakdown Service Station Locating System will be created. Before the system is put into operation, the application will be tested internally and by users. The proposed system connects Car Repair Service Providers (CRSP) with the Public through this system as one of the anticipated outcomes. When a vehicle breaks down on a highway or federal road in any area of Malaysia, the owner can enter details about the location of the breakdown using a mobile phone or tablet. It will operate automatically. Find any CRSP that is close to the reported occurrence location

Users can get in touch with the CRSP to have the vehicle serviced. The development of a car breakdown service station locator system is the goal of this project. The suggested system establishes a connection between Car Repair Service Providers (CRSP) and the Public.

[3] Authors- The different helpful tools and approaches that are applied in the creation of a website were addressed in "Punam Kumari (2017)". We also talk about how websites are put together, with a particular emphasis on the Webserver tool, a local host. Next, we evaluate various web application development frameworks. We also talk about the framework and life cycle models for developing web applications. For the purpose of comprehending the issues that users can encounter, several review paper results are also given in this report. This paper discusses the technologies employed in this development, specifically PHP, and demonstrates how it works with Programming language via screenshots. It's envisaged that it will provide a practical foundation for directing the procedure.

### III METHODOLOGY

Distance-based travel to unusual destinations raises the possibility of dealing with unforeseen or mechanical problems. Travelers and drivers may not be familiar with the nearest services facility while travelling to uncharted territory. A road driver aid system may be suggested as a solution to some of the concerns mentioned above. The techniques to solve the issue are listed below.

#### 3.1 PROPOSED METHOD

There is a wide variety of support available to tourists, which they can take use of all once. These services are made available using the service provider's knowledge, which the user has access to. The Google Maps API informs tourists about the availability of services and their accessibility. The driver must see a mechanic or repair facility when their car breaks down. The motorist must ask for assistance from bystanders. If a driver uses this on-road assistance model, they should be able to locate a repair with ease. After user registration, the user logs in to the app. then GPS location tracking of the user. After that, the user's location is compared to the mechanic's registration data in the database. The nearest mechanic to the user's location is displayed. In addition, users can search for spare part stores based on their location. After the repair is complete, the user can give the mechanic a star rating. This is useful information for mechanics whose clients rate them. The details about the functionalities are listed below: Phase 1: Registration for mechanics, users, and spare parts is added throughout this step. Upon validation, mechanic details are kept in the database. Every aspect of the mechanic and user is recorded in real time.

Phase 2: It is a Live Tracking API. Registration of users and requests for the mechanic. Using the geolocator API, the system will choose the location. Both the mechanic and the user will be tracked in real time.

Phase 3: Finding the closest spare parts store is the third phase. to look for a nearby spare parts store when a component is damaged. It will look for the closest registered spare parts retailer.

#### LIST OF MODULES

The Road Aid System Project consists of the following three key modules:

- ADMIN
- MECHANICAL
- USER MEANS

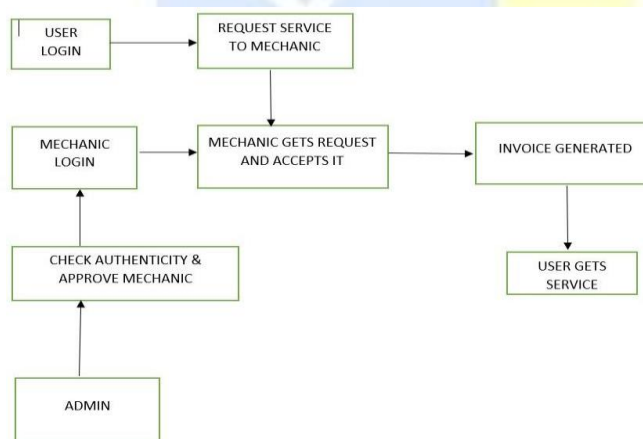


Fig 1.1 Architecture of Vehicle Help Assistance System

### 3.3 MODELLING

#### Description Modules

- Admins can log in to this module to view system changes and information.
- After enrolling on this application, the service centre sends the admin a request for permission.
- Admin has the authority to approve the service centre. After then, this software will be used in the service centre.
- This module gives the administrator access to all user and technical information.

#### B.Mechanic

- For the purpose of earning money, interested service provider can apply on this website.
- Services providers will receive secure registration and login information.
- Once registration is complete, the service providers will receive the username and password needed to log in.
- The serviceman may be added by a service provider.
- Service personnel will receive a secure registration and login during this module. To make it simple for the provider and provider to access their accounts, an authenticated account is provided. The user can better manage their patient information.
- service facility During this module, the user can submit requests, and the service provider will respond by sending a service technician to the requested location to resolve the issue. The user can then provide comments.
- The mechanical module also includes a list of services and their associated prices.

#### C. User

- User will be given access to a safe registration and login process.
- After completing the registration process, the user is given a username and password.
- The admin-approved list of nearby service provider is available for viewing by users.
- The user can then send a service request from their present location by selecting a local service provider.
- This encourages the consumer to seek out emergency car services.

## IV RESULTS AND DISCUSSION

### 4.1 Home Page

The home page is this. After clicking the proceed button, the user can begin using this application. After that, the user can decide whether to employ this application as a mechanical or as a user, depending on their needs.

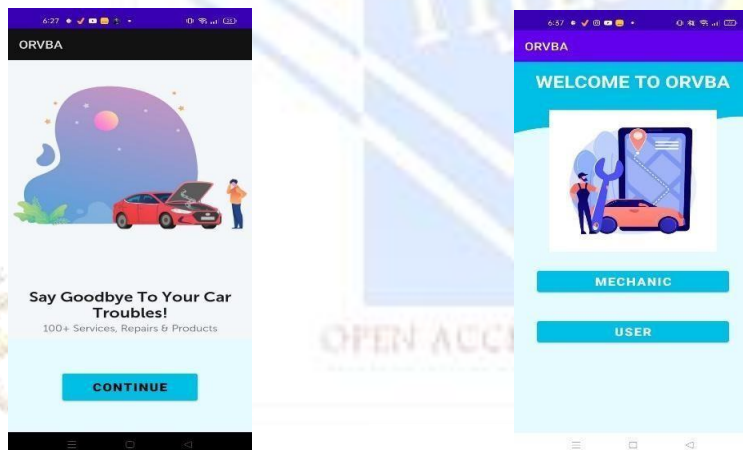


Fig 2 Home page

**B. Mechanic Information**

After completing the registration process, the mechanic receives his username and password, which he will use to log in. After successfully logging in, a permission request is sent to the administrator, and upon approval, the application's use is made possible.



Fig 3.1 Mechanic login page

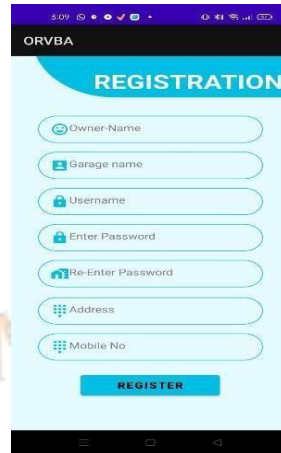


Fig 3.2 Mechanic register page

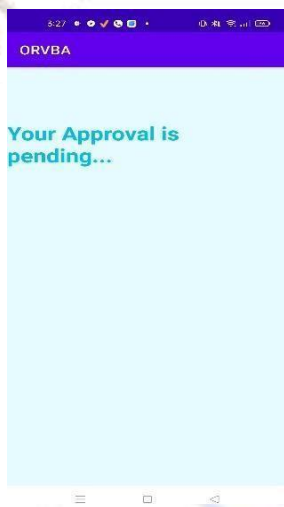


Fig 3.3 Approval Pending page



Fig 3.4 Mechanic Home Page

**C. User Information**

Users must first register for this application before receiving their username and password, which they must use to log in.

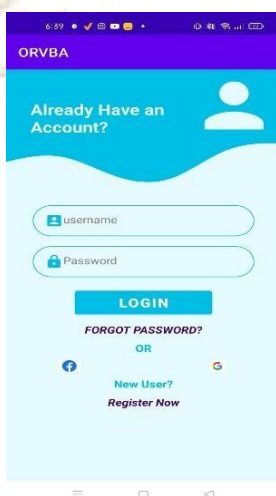


Fig 4.1 User Login page

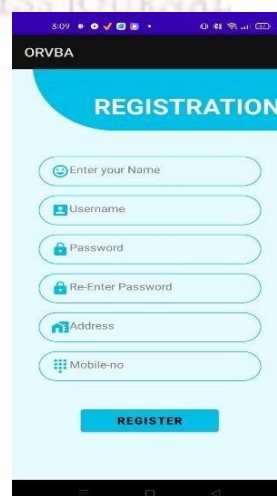


Fig 4.2 User Register page

**D. Online Payment**

User must first register for this application before receiving their username and password, which they must use to access it.

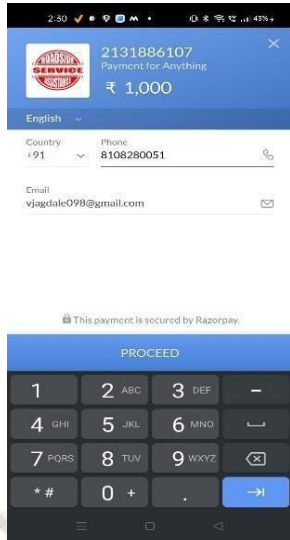


Fig 5.1 Payment Proceeding

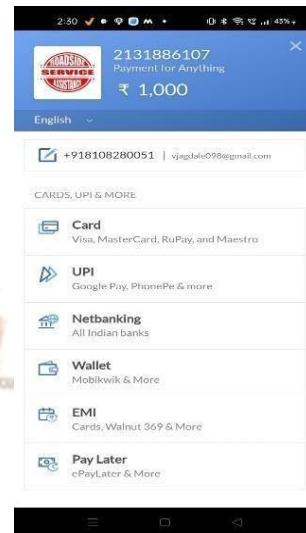


Fig 5.2 Transaction page

**E. Admin Details**



Fig 6.1 Admin Login page



Fig 6.2 Admin Home page

## H. Verification of OTP

After completing the registration procedure, users must confirm their mobile number and receive an OTP on their registered cellphone number.

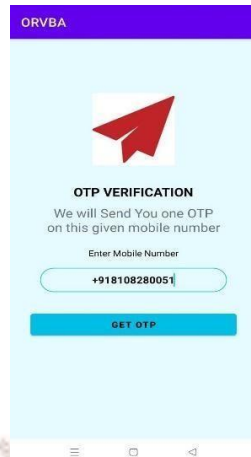


Fig 7.1 Enter OTP Page

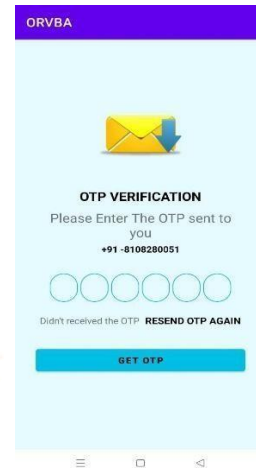


Fig 7.2 OTP Verification Page

## I. The closest parking garage

The closest garage location to the user's current location can be found.

## V CONCLUSION

Consequently, we provide better location results with our on-the-road vehicle breakdown support. For the user who uses it in an emergency, the ease with which the nearest area can be identified is tremendously helpful. The application offers directions to the user's chosen nearby emergency service. Also, it includes the phone number for those services. In situations like this where performance is critical, this strategy provides a relatively simple user experience and outperforms the current system. Our application will employ all reasonable attempts to identify and point users towards the nearest service provider based on their location. It aids the user in situations like as towing for mechanical issues, gasoline delivery, flare tires changes, and vehicle collisions, among others. Service information, which is kept on the server as part of the larger roadside assistance service, can be accessed via the application.

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