



EV-24x7 App

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Abstract: An emergency is an unexpected happening that needed immediate intervention due to its degree of threat. A vehicle breakdown is a specific emergency that has caused vehicle owners and travelers frustrated moments, especially when it happened in an unfamiliar location.

Furthermore, access to competent vehicle technicians and other related services is limited and can be worsened by language barriers and unfamiliar areas. In such situations locating nearby electric vehicle spare parts/service shop becomes important. The application solves this problem by providing users to ability to search for nearby service/spare part shop so that they can get the desired help from them.

Thus it eliminates the risk of disaster and provides timely help to the user. The system has a user module where in the user can search for nearby shops providing desired service. He can raise a request to get desired service from the team. The second module consists of an admin app which can be used by garages and shops to serve the request. With the help of admin app they can add, edit and update their services and products. Thus our proposed system tries to bridge the gap between user and shops..

Keywords: Electric Vehicle, Locator, Nearby, Emergency

I. INTRODUCTION

Electric vehicle is new to everyone. When people's stuck in situation like while traveling with his electric vehicle it get automatically stopped or any problem is occurs in that situation and user can't able to get help. He can't able to solve his problem then what he do next. Fir that problems we created our app that is nothing but electric vehicle service provider. An electric vehicle service provider is an application that provides all details about the garages, vehicle spare parts shops Located at user's location. It connects user to that garages or spare parts shops.

Electric vehicle is new for all so that user can't find problem that happened when electric vehicle failure occur. So that's why we developed this application. If any fraud is occurs for that we have planned to get details and verify admin and users. So that the fraud will be disappeared. Electric vehicle is launching in India due to deficiency of Fossil fuels and increasing global warming. This is good from government to take action on it. But this is new for all so that many problems occurs in that and we are solving one of the problem in that .

II. LITERATURE REVIEW

The volume of such accidents occurring in India is at a very high level due to lack of technology and there is no viable solution that can bridge the gap between the person needing support and the team of experts. The availability of suitable and easily accessible communication channels to connect to workshops and shops for support can greatly reduce such scenarios.

Accessibility through technology therefore plays a dominant role in this situation. Few existing apps offer a solution by sending an SOS message, calling, or asking for nearby help or support, but this solution has challenges an lacks professional help. we aim to lower this barrier with our proposed system.



III. SYSTEM ARCHITECTURE

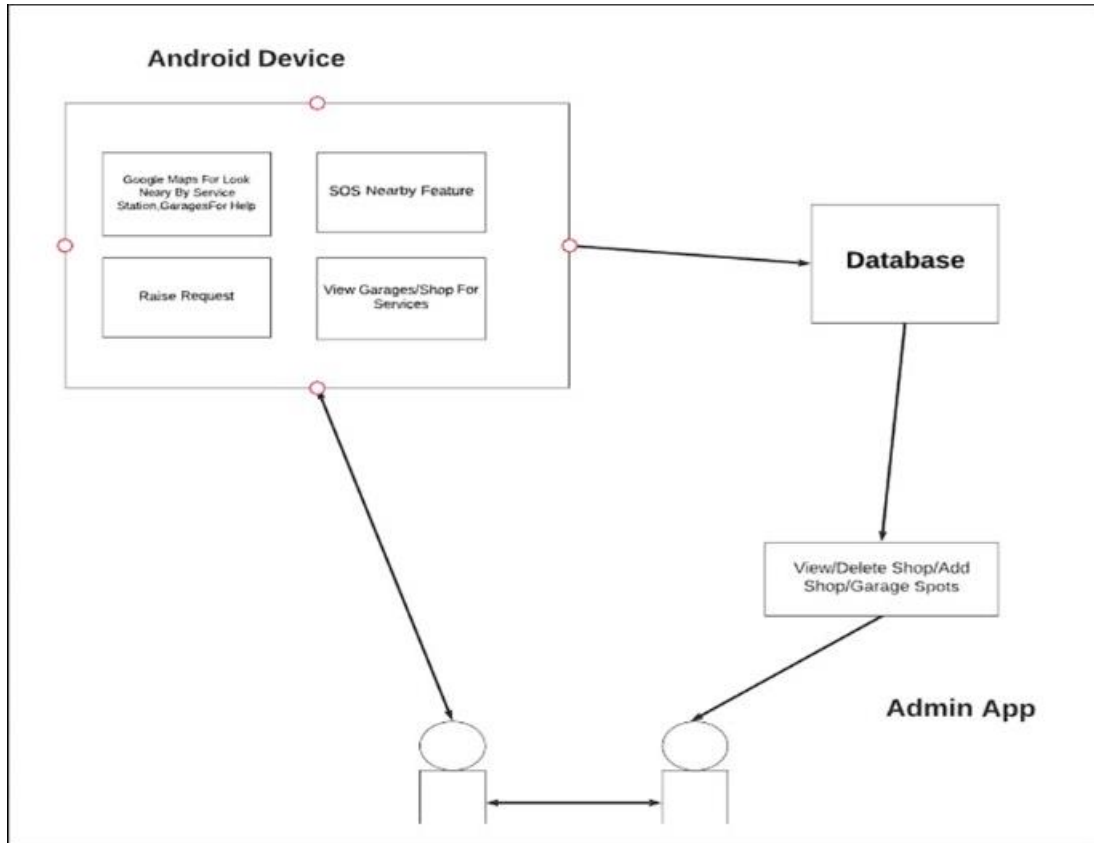


FIG 1. SYSTEM ARCHITECTURE

• OVERALL STRUCTURE :-

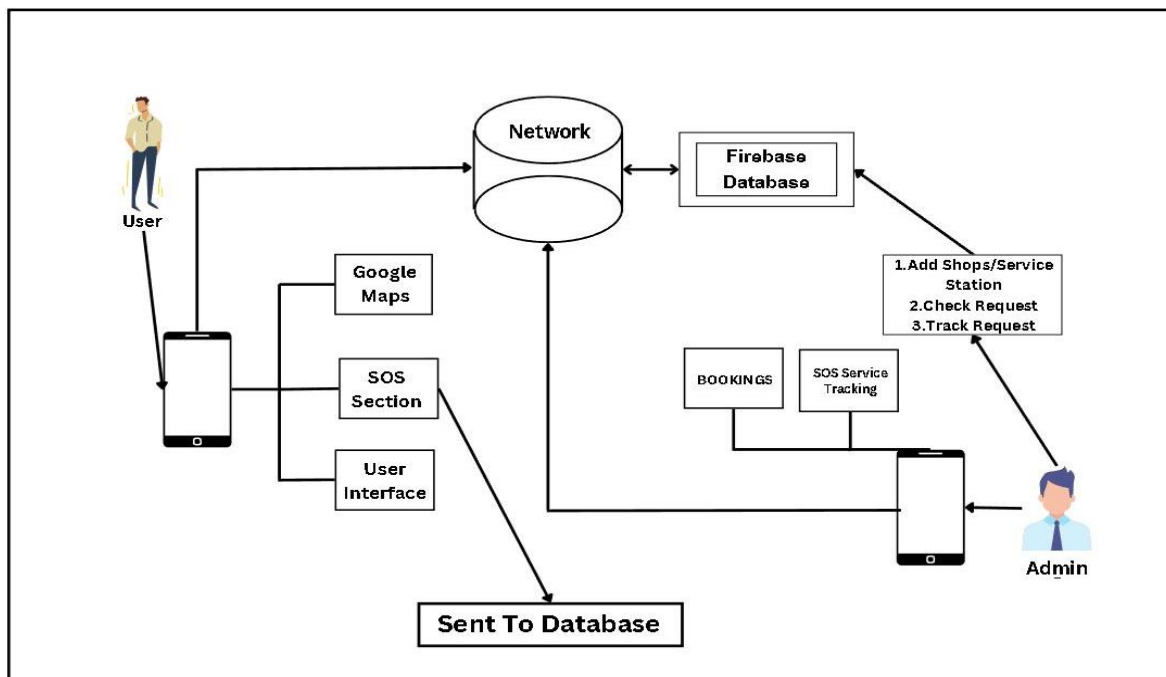


FIG 2. STRUCTURE OF APPLICATION



- **Android :-**

AndroidX is a set of libraries that provides backward-compatibility for newer Android features and components on older versions of the Android platform. It was introduced by Google in 2018 as a replacement for the previously used Android Support Library.

- **Firebase :-**

Firebase is a mobile and web application development platform developed by Google. It provides a set of tools and services that help developers build, improve and grow their applications. Firebase includes a wide range of features such as authentication, real-time database, storage, cloud messaging, and analytics. These services can be used individually or combined to create powerful applications.

- **java.util :-**

java.util is a package in the Java programming language that provides a set of utility classes for performing common tasks, such as working with data structures, handling dates and times, and managing input and output.

FIG 3. INSTALL PACKAGES

- **com.muddzdev:styleabletoast :-**

com.muddzdev:styleabletoast is a library for Android that allows developers to easily create customizable Toast messages with different styles and animations. It is developed and maintained by Mohammad Uddin, also known as muddzdev.

- **com.airbnb.android:lottie :-**

com.airbnb.android:lottie is a popular open-source library for Android, iOS, and Web that allows developers to easily add and render high-quality animations in their apps. It is developed and maintained by Airbnb.

- **com.squareup.picasso :-**

com.squareup.picasso is a popular image loading and caching library for Android developed by Square Inc. It provides a simple and easy-to-use API for loading images from various sources and displaying them in image views.

- **com.bumptech.glide :-**

com.bumptech.glide is a popular image loading and caching library for Android. It provides an easy-to-use API for loading images from various sources, including URLs, local storage, and media providers, and displaying them in image views.

- **com.google.android.gms :-**

com.google.android.gms is a package in the Android operating system that provides the Google Play Services client library for Android apps. It contains a set of APIs that enable developers to integrate their apps with various Google services, such as Maps, Drive, Analytics, and more.

IV. METHODOLOGY

- **Define project goals and objectives:**

The first step is creating an electric vehicle service locator project is to define the project goals and objectives. The primary objective of this project is to create a platform that allows electric vehicle owners to locate nearby charging stations and service centers.

- **Gather data:**

To create an accurate and reliable service locator, we need to gather data about electric vehicle charging stations and service centers. This can be done by collecting data from public sources, such as government websites, electric utility companies, and electric vehicle charging network providers.

- **Develop database application:**

Once the data is gathered, the next step is to develop a database to store the data. This will involve creating a data model, designing tables, and defining relationships between tables. The application will provide a user-friendly interface that allows users to search for charging stations and service centers by location, amenities, and services offered.

- **Implement data validation and security:**

To ensure data accuracy and prevent unauthorized access, the application will implement data validation and security measures such as encryption, password, and user authentication using validation of login in both App.



- **Testing and Quality Assurance:**

The application will undergo extensive testing and quality assurance to ensure that it functions correctly and meets the project objectives. This will involve conducting unit tests, system tests, and user acceptance testing.

V. WORKING OF APPLICATION

So there are two app which is User App And Admin App –

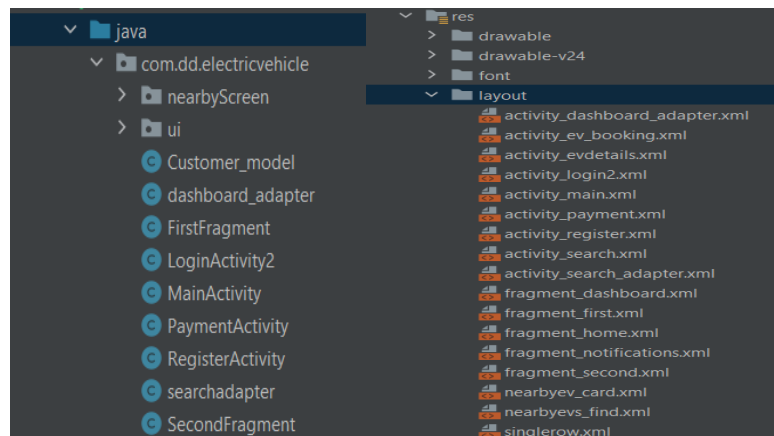
- **User App :-** The User App is basically developed for the user in which the user can get the Services Which are Nearby Garages/Shops ,SOS Service Help ,Nearby Charging Station.

Example, Suppose a person stuck in a situation where it's Ev is Damaged by any kind of reason or battery get drained and he wants the service to repair his vehicle but he didn't know where the actual service may be get provided so using this app he can get the mapsection in which he can check of his surrounding area is there shop is available or not or if there person is in situation where he cannot move or get the location in which the map is showing so he can use the SOS feature in which he can click the button SOS so his current location is sent to the nearby service station or garage owner so by getting the notification the admin who is available on there admin app the request popup is shown so he can track the location and if the admin is available or ready to accept the request he can simply click Accept button so in the user app those who accepted the request so the in the user app the details are displayed .

- **Admin App:-** The Admin App is designed for the Owner of the particular Shops ,Service Station, Garages. Admin can add his own service details in which he can fulfil the requirement of user.He can Add/Edit his shop or service station details.Those Request is sent by the user it can displayed in the admin app such as,current location,name ,mobile number .And if the user is leaving nearly of the shop/service station so he can buy the subscription plan for his vehicle and the subscription booking is shown in Admin app.

IMPLEMENTATION:

- **User App:-**



- **Admin App:-**

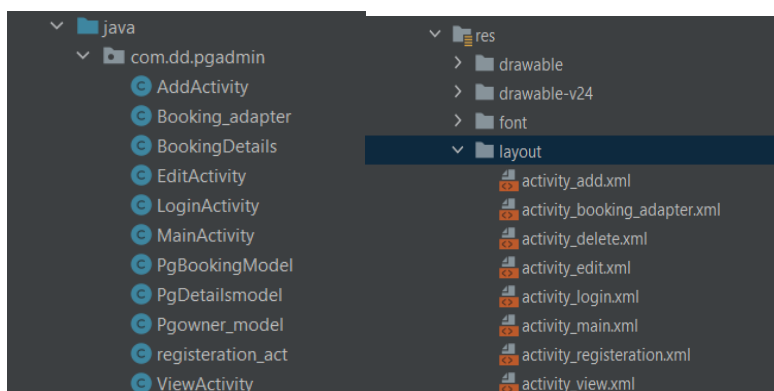
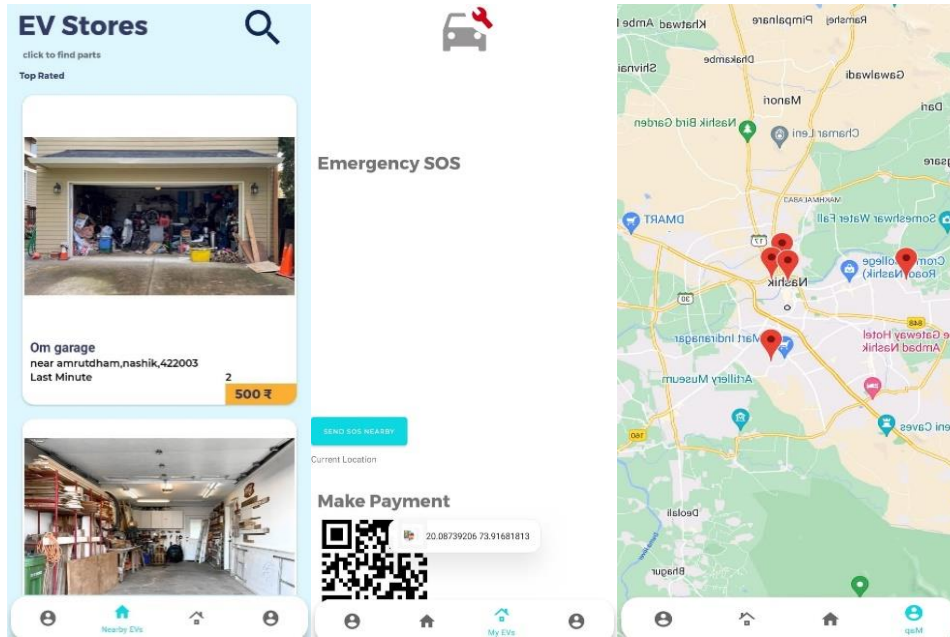




Fig.3 OUTPUT SNAPSHOT

User App:-



User Interface

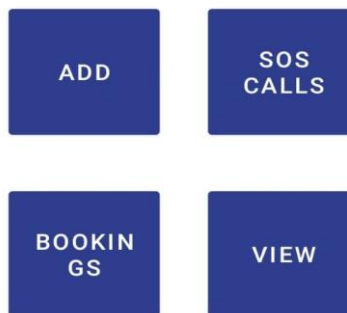
SOS Section

Nearby Garages Map View

FIG 4. OUTPUT SNAPSHOT

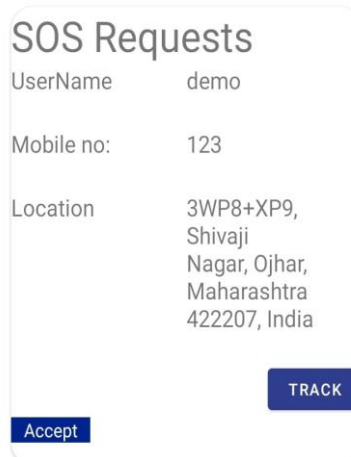
Admin App:-

EV Shop Admin

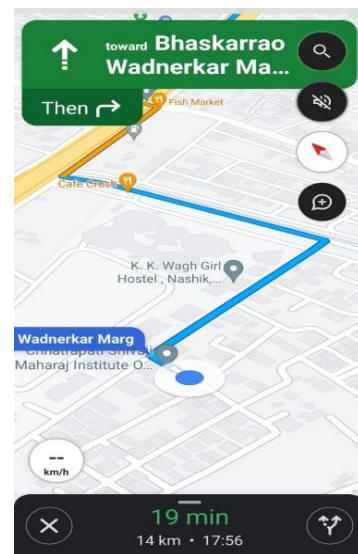


Check Stats in Admin App

Emergency SOS



SOS Call Request



Tracking Location



VI. RESULT&DISCUSSION

Our project on the electric vehicle service locator is aimed at providing a comprehensive and user-friendly interface that helps electric vehicle owners locate charging stations and service centers near their current location. The system utilizes a database of electric vehicle charging stations and service centers that are updated in real-time to ensure that the information provided is accurate and up-to-date. The system was developed using modern web development technologies such as HTML, CSS, JavaScript, and the Google Maps API.

It was designed to be responsive and accessible on multiple devices including smartphones, tablets, and desktops. In testing the system, we found that it was able to accurately locate charging stations and service centers within a reasonable distance from the user's current location. Users were able to easily search for charging stations and service centers by entering their current location or by browsing a map interface. The system also provided additional information about each location such as the type of charging station, availability, and ratings from other users. Electric vehicles are becoming increasingly popular as a way to reduce carbon emissions and move towards more sustainable transportation.

However, one of the challenges of owning an electric vehicle is finding charging stations and service centers when on the road. This is where our electric vehicle service locator system comes in handy. Our system provides a comprehensive and user-friendly interface that makes it easy for electric vehicle owners to find charging stations and service centers near their current location. The system utilizes real-time data to ensure that the information provided is accurate and up-to-date. In addition to helping electric vehicle owners find charging stations and service centers, our system also has the potential to encourage the adoption of electric vehicles. By providing a convenient and reliable way to locate charging stations and service centers, we hope to make electric vehicles more attractive to a wider audience.

VII. CONCLUSION

As the world faces issues related to travel, vehicle services, etc., and safety is threatened, it is difficult to get help in remote areas, so take responsibility for your own safety.

In this era of booming technology, the proposed Android application "Electric vehicles service Provider App using Android" is a boon to society to provide immediate help from helpless situations.

ACKNOWLEDGMENT

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BIOGRAPHY



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