Midway Vehicle Malfunction Assistance Finder

Dr. Harish B G[1], Meghana S Patil[2]

[1]Co-Ordinator, Department of Master of Computer Application,UBDTCE,Davangere
[2]Meghana S Patil,PG Student, Department of Master of Computer Application,UBDTCE,Davangere

Abstract— This application is built for the use of the users to find the nearest service station in some places. By using this app services station can help the users by informing their details through the app. A user-friendly interface can be built here. By using the ASP.Net and SQL Server. Android app is developed by the android platform. It helps to users and service stations situated within city to utilize app effectively where data stored within it is secured and can maintain data, monitor the service provided. It helps the users to find the nearest service station to repair their vehicles just by clicking on few buttons. The android helps the service station to track the user's vehicle location.

Keywords— Vehicle, Service providers, Breakdown, Assistance.

Introduction

Now a day, technology is on a boost. People wish to live a luxurious life with minimum physical work. While travelling if a traveler"s automobile gets breakdown due to some reason, issues faced by them are lack of knowledge of nearby garages, surrounding area unknown to them, breakdown in deserted area, issue of reliable mechanic (expertise level). To overcome this problem, we have come up with an Android application Almost every man now owns a vehicle and there are always chances for something going wrong with the vehicle which results in a breakdown. These days, the services accessed from location-based applications is one of the most relevant and commonly explored. Aim of our project is to provide the service for the vehicles within a timely manner and suitable time when the customers wants to repair their vehicle in emergency or their vehicle got damage in some places our application helps them to find the garage and the mechanic. It helps to users and service stations situated within city to utilize app effectively where data stored within it is secured and can maintain data, monitor the service provided. Our application being to be developed consists of mainly three modules such as admin, service stations and users. Our application developed is an android app which is a user friendly for the users and service stations for providing the services to them at their best as quickly. This app installed over android phones help in utilizing it effectively and can store data safely, there will be no misuse of resources. This saves lot of time and application utilization helps in monitoring effectively. This is consisting of the admin, Users and service station as modules and each consisting different functionalities. Mainly admin is the super user of this application and can use the web interface to monitor the information. Admin also view the users and the reported cases information here. Service stations are another module of this application and can get the username and password, they can have the options to view the vehicles details posted by the users along with the location. Service station also can have the option to update about the cases, once they provide the service. Users can register to the app by using their necessary details and they can get the username and password. They can upload the vehicles information just by using the android app in just a few clicks

Literature Review

[1] Authors- "Akhila V Khanapuri (2015)" Proposed that there was an exponential boom withinside the variety of motors on avenue, variety of avenue injuries and car breakdown instances recorded. Finding powerful methods to gain most gas performance with out hampering the inner shape of those cars along side imparting a reaction device to fight mishaps is a difficult task. In this paper, android utility is proposed which video display units parameters like Engine RPM, gas status, throttle role via an On board Diagnostics (OBD-II) being capable of assist novice drivers with tools converting and offer help in case of car breakdown

authors - "KhooJin Sheng (2016)" analyzed car breakdown incidents on the road. He hopes that with some research, auto breakdown statistics can be gathered to see if this project will be useful to those

in need. The next step would be to analyze and compare these existing auto breakdown service portals or applications to identify the fault. The development of the automotive breakdown service station locator system will be done after planning and analysis. Internal testing and user testing of the application will be performed prior to system deployment. As part of the expected outcome, the proposed system connects the Auto Repair Service Provider (CRSP) and the Public through this system. If a car owner's vehicle breaks down on a highway or interstate in any part of Malaysia, the owner can input the location of the incident into the system by mobile phone or tablet. The system will automatically search for any CRSP closest to the location of the reported incident. Users can contact CRSP for vehicle maintenance.

[2] This project aims to develop a system for locating automobile service stations. The proposed system connects Auto Repair Service Providers (CRSPs) and the public through this system.

Author - "PunamKumari (2017)" discussed various useful tools and techniques used in website development; we discuss the lifecycle model and the development of web application frameworks. In this report, various summary documents are also included to understand the issues that users may face. This document describes the technologies used in this development. We hope it will provide a useful framework to guide the process.

Existing System

In existing system when our vehicle get damage we have to find the garage and we can get the vehicle into the garage but in some case in some places we don't know the location or we don't know the mechanics in that particular places. During that time our application helps the customer to provide the garage or mechanics.

Proposed System

The purpose of this program is to provide a maintenance system for a car or other vehicles that is more efficient compared to the existing system. Current service desk management systems have certain disadvantages. These inadequacies are eliminated by the management system of the car service center. And it can be accessible to almost everyone. In the past, in case of car breakdown or other emergencies, people could not get help and find service centers conveniently. In the proposed system, we will provide an application called Midway Vehicle Location Finder, which provides the location of the workshop and mechanics near the customer's location.

This program acts as a means of communication between the client and the workplace.

Customers can see information about the nearest repair shops.

User-friendly pages are provided.
24X7 Availability.
Times effective.

Advantage of Proposed System

The traveler is provided with more services and support to ensure that they have a good travelling experience. The traveler can have easy access to the services based on the current location using Google Maps Navigation System. The services are provided in a wide range so that travelers enjoy the maximum benefit out of it. System recommends traveler to choose the best service.

System objectives

Develop a web-based service provider registration system
Implement a rating-based recommendation system
Implement review analysis module using text mining
Develop Android application development to search service providers

System Requirement &Specification

A document known as a software programme needs specification (SRS) outlines the functions and intended outcomes of a particular piece of software. Additionally, it outlines the typical overall performance the product must deliver to satisfy the needs of all stakeholders (business and consumers). Four Ds are a true summary of an SRS: Define the goal of your product. What are you constructing? Specify the demands. Bring it in for review. We decide to DEFINE the goal of our product, DISCUSS what we are doing, SPECIFY the demands of the personas, and DELIVER it for Approval. A best SRS file will outline the entirety from how software program application software will engage when embedded in hardware to the expectations when related to one of a form software. An even larger SRS archives in addition account for real-life consumers and human interaction. The nice SRS archives outline how the software program software program will have interaction when embedded in hardware or when linked to great software. Good SRS archives in addition account for real-life users.

Modules

This project has following modules.

➢ **Admin:**

Admin is the super user of this application. He can login to the system and monitor the whole application by view the registered Service station; he can also have the options to delete the service station. Admin is the only person who can view and delete the users who is registered to the app. He is the only authorized person to view and delete reported cases (complaints). These functionalities of admin are done by using the web interface.

➢ **Service Stations:**

Service Stations are registered to the application by using their necessary details along with their location. They can view the nearest cases posted by the users and can proceed for further action. Here they can update the status about the particular case. They can also have the option to view the entire accepted complaints list attended by them by using the app.

➢ **Users:**

Users can register to the app by using their necessary details; he has the option in the app to post some details of the vehicle/complaint. He can also have the option in the app to post the details by using the Different categories; he can post the details by using the respective category. He can also view the report and the location of the service stations report about the case, once they update
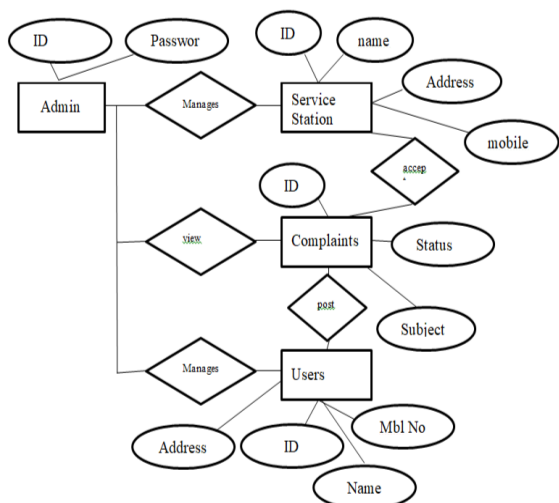
about the same. Users also have the option to view status of the complaints.
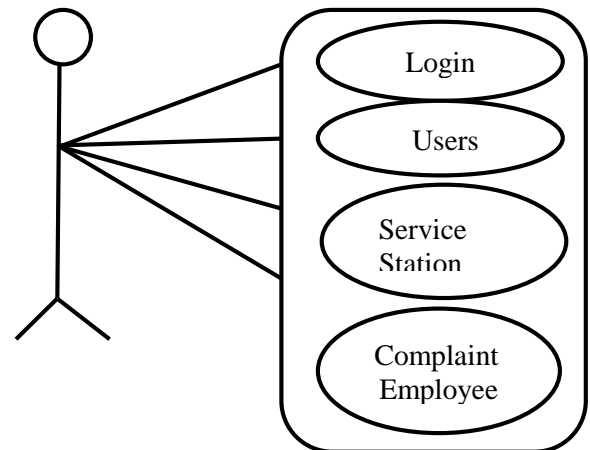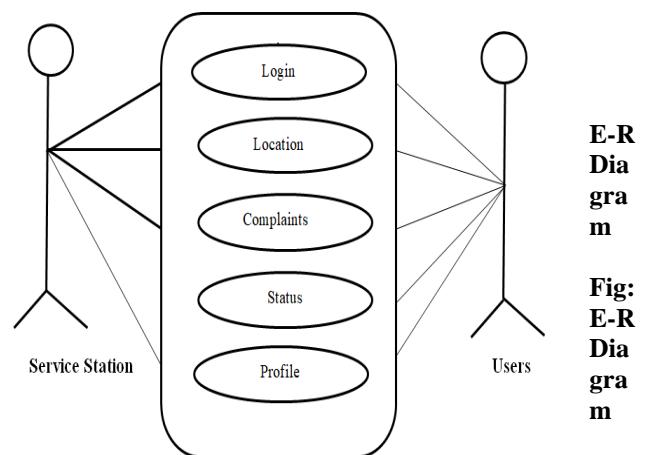
DETAILED DESIGN

Use Case Diagram

Fig: Use Case Diagram for admin

Use case diagram for Service Station and Users:

E-R Diagram

Fig: E-R Diagram

Application

Android product creation is the method of creating new apps for smartphones that run the Android operating system. According to Google, Android applications can be written in Kotlin, Java, and C# using the Android software development kit (SDK), but other languages are also supported. Google Maps is a popular tool for determining the destination location, calculating distance, and estimating travel time from your current location. Basically, Google Maps has a large

Fig: Use case diagram for Service Station and Users

number of application programme interfaces (APIs) that allow you to integrate Google Maps' excellent features and effectiveness into Smartphone applications.

Grabbing Location

The assistance given to drivers is extensive, and they can take advantage of it all at once. The services are made accessible along with the service provider's records, which the traveller may access. The Google Maps Navigation System informs travellers about system availability and
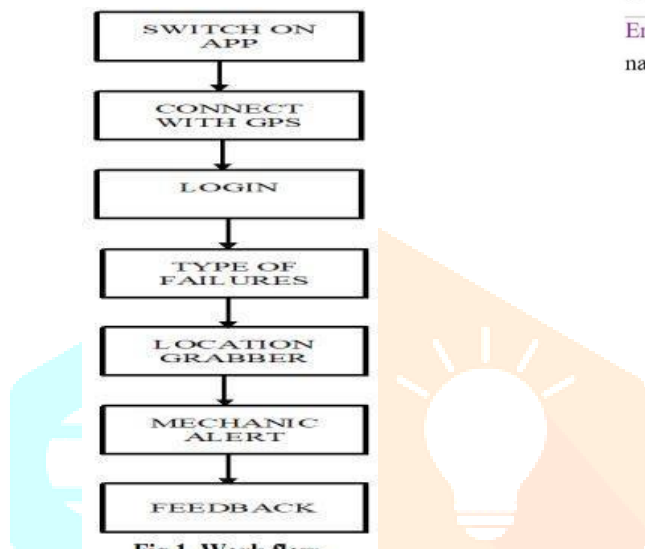
User Details

User Name	nanditha
AddressLine1	chitradurga
AddressLine2	Rajesh repair station
City	Chitradurga
Mobile	8971477739
Email ID	nanditha@gmail.com

Fig:User Profile

SWITCH ON APP
→
CONNECT WITH GPS
→
LOGIN
→
TYPE OF FAILURES
→
LOCATION GRABBER
→
MECHANIC ALERT
→
FEEDBACK

Fig.1. Work flow

Login

Sign in to your account

Username

Password

Forgot Password?

LOGIN

Don't have an account? Create

Fig:User login

Post Complaint

Vechicle

Description

AddressLine1

Address Line2

City

Davanagere

Lattitude

Fig:Post Complaint

Fig:Complaint Details

Future Scope

The purpose of this application is to create an interactive and fun application for the Android Market. The car service center management system consists of two main components: a client application that runs on an Android phone and a server application that supports and interacts with the functions. the other side of the customer. The system is designed to provide the characteristics of all vehicles, the maintenance of service centers, the location of all nearby service centers, etc. The model shown above is easy to implement with existing technology infrastructure. Models are simple, secure and extensible. The proposed model is based on serial communication. But for future expansion of the system, we can use the offline system. We can even initiate registration and location-based information online

Conclusion

The most potent instrument available today is the Internet. There are numerous services available on the Internet. The main benefit of the internet is information. The Internet is a virtual informational gold mine. On the Internet, you can find practically any sort of data on almost any kind of subject that you're looking for, so you can learn anything about anything. There is a ton of material available, ranging from market data, fresh concepts, and technical support to government law and services.

Our application developed is a website oriented as well as android application which is a user friendly app thus saves lot of time in finding data. Here data stored is secured and misuse of data is less. Our app mainly concentrates in providing services to the users and service stations quickly and effectively. This app allows users to post their vehicle complaint which automatically records its location and can find nearest service station for getting repaired. Service stations can easily navigate user's vehicle location through GPRS and resolve the problem.

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