ONROAD VEHICLE SERVICE APPLICATION

K K Venkatesh [1], Dr Srinivasulu M [2],

[1] *Student Department of MCA, UBDTCE College, Davanagere*
[2] *Assistant Professor, Department of MCA, UBDTCE College, Davanagere*

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Abstract - Android applications are becoming increasingly important in the business world as technology advances. As a result, because technology and smart solutions are changing the perspective of many concepts as well as the means of accessing solutions, there is a considerable increase in android application services. There are numerous Android applications that play an important role in providing services such as food delivery, grocery delivery, and service applications; however, there is no Android application for vehicle breakdown services, making it difficult to identify vehicle service stations when traveling. The primary goal of this mobile application is to create an android app concerning auto servicing stations. This app gives you fast advise on a vehicle service station, but it also maintains track of the surrounding

Key Words: GPS,Direction API,Geocoding API, Coordinates, Location, Real-time.

1. Introduction

While traveling, people often encounter vehicle issues like engine problems or tire punctures. Some vehicle owners have the knowledge to handle basic servicing themselves. However, many now prefer using their own vehicles instead of renting from travel agencies, often lacking expertise in vehicle maintenance. To address breakdowns during travel, it's crucial to employ technological solutions. Android, known for its open-source nature, stands out as a leading platform for mobile devices. A numerous people a difficulty getting help when the slows down and about. An impressive part of them has no vehicle fix expert centers contact number and couldn't find support as the vehicle fix organization center might be away from their area an effort is made to assist people in need when a vehicle slows down on a road. It plays a pivotal role in various business sectors, facilitating services such as food delivery, grocery shopping, and movie ticket bookings through dedicated apps. With the proliferation of technology, there is a growing need for Android apps that cater specifically to vehicle breakdown issues encountered during travel. According to estimates from the National Highway Traffic Safety Administration (NHTSA), there are approximately 4,000 fatalities and nearly 60,000 injuries annually from roadside crashes. In such situations, it is advisable to seek assistance from certified vehicle repair professionals, such as the Certified Roadside Service Providers (CRSP), who have the expertise to ensure both vehicle functionality and personal safety on the road. Accessing these professionals promptly is crucial, as public awareness of their services rema ins limited.

2. Literatures Survey

Poonam Deep Kaur et al.'s computer-based payroll system was developed with PHP, HTML, CSS, JavaScript, and MySQL, and the database was designed with MySQL. Ed. Access to login and logout is controlled by the administrator, and the head of HR is in charge of other employees' data.[1] khila.V.-Khanapuri, Anagha-Shastri, Gareth D'souza, and Shannon-D'souza directed research on the number of vehicles all over town, the repeat of street setbacks, and the episodes of vehicle breakdowns that were kept in On Street a Vehicle Right Hand Application.[2] iss-Harsha-Supare, Miss-Kanchan-Yadav, Miss Divya-Solav, Mr. Aniket-Budhbaware, and Mr. Sahil Daronde suggested the Breakdown Alliance Station. The improvement cooperates with People, Vehicle Fix Master centers, and On-Street They only need to obtain the current area in order to determine the location using the existing framework.

2.1 Existing System

That implies the need for extra software, which has a number of disadvantages, in order to identify the surrounding region. For this reason, we must provide the location so that it can look around the neighbourhood for the things we have requested.

Disadvantages

1) It's not a sensible use for emergency situations.
2) It isn't useful. Assuming that the customer is in a remote location, they use one application to locate the place and then use another application to search nearby areas.
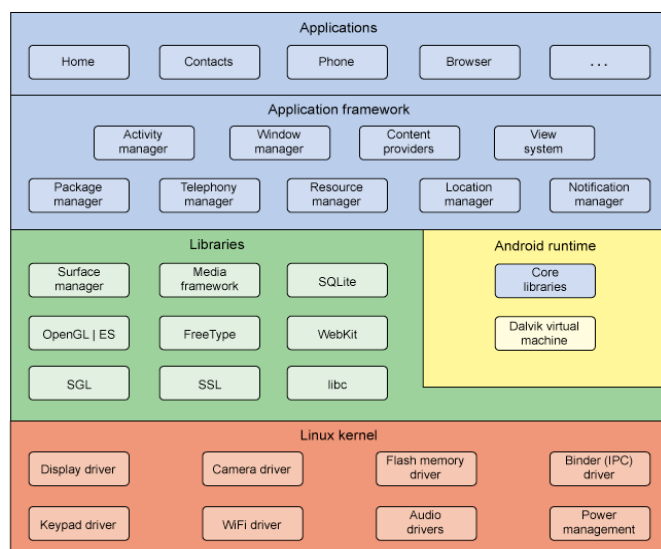
2.2 Proposed System

Here the locator allows you to search mechanics from 3 different locations this online mechanic locator reduces work and can easily find the mechanics from various location. The main objective is to provide a better service and to make the process easily and finally appointing a mechanic quickly.

When a car stops in unexpected circumstances, there are a lot of different provocations involved. The consumer might not be aware of the exact location of the closest reachable professional in such an unpleasant situation. By introducing the application, gaining access to the nearby specialist, and subsequently reaching them via the web office and the application, the goal is to cultivate an Android application that will benefit the customer. In general, when a customer finds themselves in a particularly concerning circumstance, the first course of action is to ask about, locate the closest subject matter expert, and start the support cycle. The suggested framework is an Android application that has been assembled and can operate in relation.

Advantages

1) Easy to use.
2) Provides both locations nearby need
3) It is one of the best applications used while emergency

3. Android OS architecture

4. Implementation

A Software Requirement Specifications (SRS) is a description of a software system to be 11 developed. It lays out function and non-functional requirements and may include set of use cases that describe user interactions that the software must provide.

Introduction to Android

Android architecture is a software stack of components to support mobile device needs. 8 Android software stack contains a Linux Kernel, collection of c/c++ libraries which are exposed through an application framework services, runtime, and application

Applications: The top layer of the android architecture is Applications. The native and third-party 15 applications like contacts, email,music,gallery,clock,games,etc.The Application Framework provides the classes used to create Android applications. It 9 also provides a generic abstraction for hardware access and manages the user interface and application resources. The application framework includes services like telephony service, location services, notification manager, NFC service, view system, etc.

4.1 PHP

is a server-side scripting language Desigual for web development but also used as a general-purpose programming language. As of January 2013, PHP was installed on more than 240 million websites (39% of those sampled) and 2.1 million web servers Originally created by Rastas Len for f in 1995, the reference implementation of PIIP is now produced by The PHP 6 Group While PHP originally stood for Personal Home Page, it now stands f e t PHP Hypertext Preprocessor, a recursive backronym. PHP code can be simply mixed with HTML code, or it can be used in combination with various templating engines and web frameworks. PHP code is usually processed by a PHP interpreter, which is usually implemented as a web server's native module or a Common Gateway Interface (CGI) executable. After the PHP code is interpreted and executed, the web server sends resulting output to its client in form of a generated web page. PHP has also evolved to include a command-line interface (CLI) 6 capability and can be used in standalone graphical applications. PHP started out as a small open-source project that evolved as more and more people found out how useful it was. Rasmus Leadoff unleashed the first version of PHP way back in 1994.

4.2 MY-SQL WORKING

MYSQL follows the working for Client-Server Architecture. This model is Designed for the end-users called clients to access the resources from a central Computer known as a server using network services. Here, the clients make requests through a graphical user interface (GUI), and the server will give the desired output as soon as the instructions are matched. The process of MYSQL environment is the same as the client-server model. The core of the MYSQL database is the MYSQL Server is available as a separate program and responsible for handling all the database instructions, statements, or commands. The working of MYSQL Server are as follows:
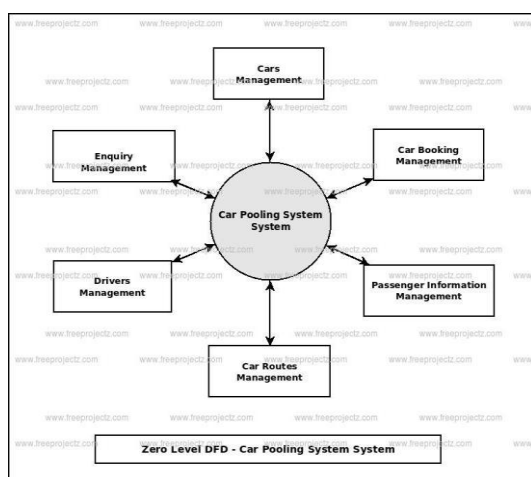
➢ MYSQL creates a database that allows you to build many tables to store Manipulate data and defining the relationship between each table.

➢ Clients make requests through the GUI screen or command prompt by Using specific SQL expressions on MYSQL.

➢ Finally, the server application will respond with the requested expressions and produce the desired result on the client-server.

An Android application is created using a specific type of programming; it requires assets, such as photographs, sound documents, and anything else that complements the application's visual display, to be pulled directly from the source code. For example, you should use XML data to handle requests for more sophisticated user interfaces (UIs) and the exuberance, menus, styles, and colors. By teaching discretionary resource strategies (e.g., different screen sizes and vernaculars), using application resources improves it by re-establishing various components of your application without changing the code and allows you to work on your program for

a variety of device plans. For every resource you see for your Android app, the SDK creates a fantastic whole number ID that you can use to reference the resource in

5.Data flow diagram

6. The Data level

The continue with fit data that is contained at this level is normal to pick away at on a corporate level. Information is essential to any system's operation. affiliation. Thus, it is imperative that this kind of knowledge be continued. The task of enduring the information is performed by the information level.

6.1 The Business level

This level is responsible for enforcing all of the association's business regulations. It operates on the data entered at the basic information level and the data provided by clients via the web level. This level, therefore, kind of chops away at data from the web-level and the information level to carry out tasks for the clients in accordance with the association's business regulations.
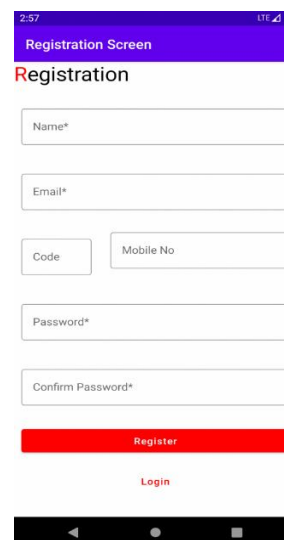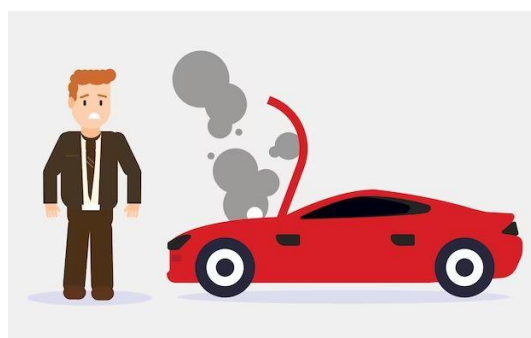
6.2 Results Snapshots

Fig 1: Registration

Technical Environment for Android

Android applications is written in Java language. Android-SDK gadgets make use of your code. in addition to any data and resource reports to produce an Android bundle, often known as an APK, which is a narrative file with an.apk postfix. Everything included in an Android program is contained in a single APK file, which is also the file that Android-controlled devices utilize to deliver the application. An Android app has its own security sandbox when it is first installed on a device: Every program functions as a separate client in the multi-client Linux system used for Android working development. Generally, the system sends a fantastic-Linux client ID (which is faint to the application and is used essentially by the development) to every software component. Every record is maintained in an
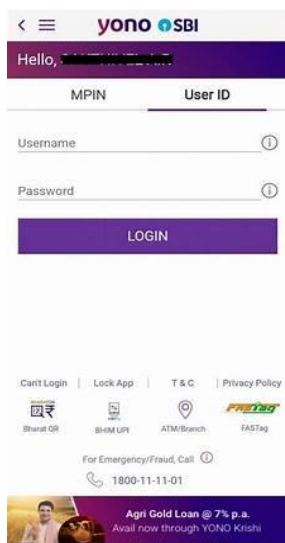
Payment Snapshot

Fig 2: Payment option

CONCLUSIONS

Thus, our problem distinguishes management and yields better local outcomes. Our training helps clients identify the surrounding region when they use it for emergency situations, which is really helpful to them. Users can choose the closest crisis management agency to them by using the software. It also offers the contact details for these services. In circumstances this significant, this approach outperforms the current framework and considerably streamlines the customer experience. Our app will use all available resources to find the local expert organization and direct users there. It aids the client in towing mechanical breakdowns, transporting fuel, changing flare tyres, and impacting vehicles. The programme, which is stored in the server as part of the more thorough emergency aids administration, can be used to access administrative details.

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