

# Integrated Utility System

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## ABSTRACT

Integrated Utility System is an all new approach to build a live project. It provides a platform for the users who were in an emergency situation to asks for an help from others. who were all the users register to this application they can able to asks for the services provided by the application. Our application will mainly help the people who get out of fuel, or some problems with their vehicles like mechanic service, or an emergency service like first aid services at the place where it is hard to find these services physically. As the software works 24\*7 services, people are no more have to worry about the time when travelling. This application provides the nearest available vendors location to the user, in that list the user can book the vendor and request for the service.

**Keywords :** Integrated utility, platform.

## I. INTRODUCTION

Integrated Utility Services(IUS) are the services, these are offered through a mobile phone's and it takes into an account of the devices geographical location of the user. IUS comes under the location based services(LBS), it provides location information because, [1]IUS is highly dependent on the mobile user's location. [2]the primary objective of the service provider is the system which is to determine where the user is present. In IUS we use the Global Positioning System(GPS) which is capture the location of the user. [1]It involves a lot of technologies to provide an accurate location , and suitable information for users required by the correspond service with minimal expenditure. [3] it is of essential value that we can readily exploits to model reality.

The existing system does not provide the 24\*7 services, examples for existing system consists of OLA, UBER etc. whenever the people go for a trip, suddenly the vehicle fuel is over, then they will go manually taking someone's help searches for the petrol then fill it is not an easy task, similarly to the

mechanic service also. And 24\*7 ambulance service is quite common these days, hence the idea of 24\*7 first aid services is implemented.

## II. LITERATURE SURVEY

The Literature survey is a brief discussion is done based on the various methods and techniques which are in health care system for sharing medical records and and hosting it on cloud. This survey have been done will be used to implement the proposed by considering these problems. In [4] this examines the location based services[LBS] from a broad perspective involving definitions, application prospectus, and characteristics we present an overview of location based system modelling regarding users, contexts, location and data. A research agenda of geographic information science are cross-examined by the LBS modelling. In [5] in recent years the new technologies like navigation systems, communication technologies, embedded systems, web-based systems to assists drivers and increase road safety and efficiency are developed.

The implementation of new solutions using these technologies requires concepts based on information and inter-services communication and resource sharing. These experimental results are reported to show the feasibility and the impact of this solution on safety and road transport efficiency. [6] LBS server invokes an online map services to geo-reference the location data and to derive the route between locations. Here presenting a service-oriented platform integrating the geo-fencing techniques for the real-time tracking of the mobile devices.

### III. METHODOLOGY

As we said in the introduction there are some disadvantages are exist and these disadvantages can be overcome by applying various methods so it can takes less human efforts to the services. In IUS admin as the full authority to manage service, users, and the vendors. He can add or delete the services and the user. If the user request for an service the nearest available vendors list will be displayed to the user. In that vendors list user can choose the nearest vendor then the request has been accepted by the vendor, and the user location is captured and identified by the vendor using GPS. Here we installing a payment gateway the user can pay online and offline cash also. So that, the people never have to depend on time when travelling.

#### 3.1. System Overview

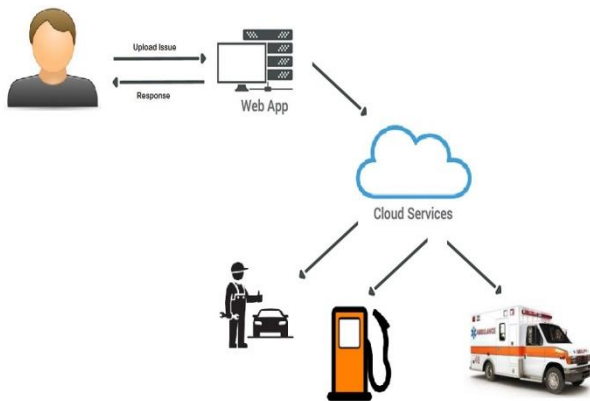


Figure 1: System Overview

As shown in the figure 1 the user will register to an application with the required details, and he request for service to an application and the request has been accepted by the available vendor who will newr to the sender location and response to the request, providing the requested services like, fuel, mechanic service or first aid service. The overall project is based on the request and response of the user and the vendors which is monitored by admin.

#### 3.2. GOOGLE(API):

Use of Google API is the major advantage in the web application. It gives the direction to the vendors about the location of the user, where the request has been generated.

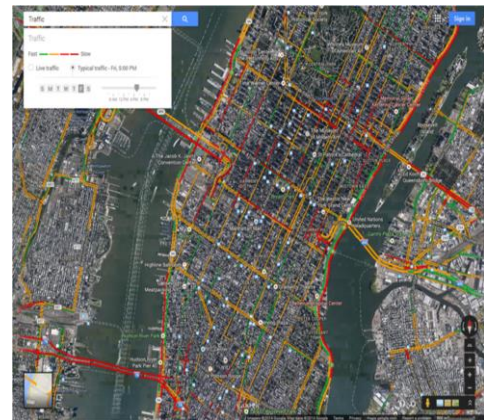


Figure 2: Google Map

The figure 2 shows how Google maps are used now a days for finding the location easily. Google maps gives direction to the map users. In our work Google maps plays an important role for finding the location of the user.

### IV. RESULT AND DISCUSSION

Result and discussion is used to prove the concept and evaluation on it. The application was written in visual studio with their additional frameworks. MSSQL databases are used to store the data in a database, CSS are used for front end design, and sql server tags are used. In this application we used the

Dijkstra's algorithm, it searches for the nearest location and location shift algorithm, if the vendor is not available in a 3 km radius then the searching of nearest location is shifted to the next region by calculating the longitude and latitude.

## V. CONCLUSION

The development of this work will help to many users within a short interval of time. This application mainly depends on the location provided by the user, this application provides 24\*7 services which are easy to access and seek. The application can be used is the best at the time of travelling, this helps the people who travel while run out of fuel or when they need an emergency service like first aid, or mechanic service when they needed.

## VI. REFERENCES

- [1]. Sachin w.Rahate, Dr.M.Z.shaikh , "Geo-fencing Infrastructure: Location Based Service". International Research Journal of Engineering and Technology(IRJET).
- [2]. Aditi Gupta and Vibhor Harit, "Child Safety & Tracking Management System". North India Institute of Technology, Najiyabad.2016.
- [3]. Akira Suyama , Ushio Inoue, "Using Geofencing for a Disaster Information System", By Tokyo Denki University, Tokyo, 2016.
- [4]. Bin Jiang , Xiaobai Yao, "Location-based services and GIS in perspective". ScienceDirect, Computers, Environment and Urban Systems 30 (2006) 712-725.
- [5]. Ahmed nait-Sidi-Moh, Wafaa Ait-Cheik-Bihi, "On the Use of Location-Based Services and Geofencing Concepts for Safety and Road Transport Efficiency", Universite de Picardie Jules Verne,48 Rue Raspail, 02100, Saint-Quentin, France.
- [6]. Xiujun Ma, Zhongya Wei, "INTEGRATING MAP SERVICES AND LOCATION BASED

SERVICES FOR REFERENCED INDIVIDUAL DATA COLLECTION". Department of Machine Intelligence ,Key Laboratory of Machine Intelligence,Beijing, 100871,china.

## Author Profile



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