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ANDROID APPLICATION FOR FUEL DELIVERY SYSTEM

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ABSTRACT

According to the survey 36% of India's electricity in urban areas is generated solely by diesel generator sets. The next 74 million liters of fuel supplied by diesel generators will be transported by dabba, which has gathered not only these people, but also those around them who need to go to fuel stations. In addition, the number of fuel stations currently in India needs to be more than doubled to meet the growing demand for problems. How do you deal with it? We have found a solution that not only solves this problem, but also addresses problems that may worsen in the future. Very simple solution A few clicks on your cell phone and mobile fuel station will start charging. Your car will be refueled or just as it is done at a fuel station.

In today's busy world everyone is indulge in their day to day activities. We hardly get time to do other activities. Many people and corporate need fuel for their cars, generators and other industrial equipments but they can't go to fuel station due to busy schedule or higher traffic. To fulfill this gap Fuel delivery application is introduced. This application works on demand of door to door fuel supply . it depends on users and their requirements. Fuel consumption is increasing day by day due to the increase of automobiles in the market , due to which person have to wait in a line to get the fuel which consumes lot of time.

In case if the vehicle got stuck on road due to lack of fuel or some other reasons ,the person driving have to push the car to the nearest fuel station which takes lots of time and efforts. This condition become worse for old aged people, so to resolve this problem Fuel Delivery Application has been launched. Using this application one can order fuel of their choice as much as they want on their current location. It also helps to those who are unaware of the place where they are stuck and are unable to find the fuel station. It also helps in refueling generators in industries or companies for emergency power supply. Ensure good quality and quantity of the fuels. This application provides door-to- door coverage. The advantage of using this system is that the user can choose the type of fuel they need.

This is an Android application that uses Android Studio as an IDE. Java is used for coding and XML is used for user interface design. The database connection is made through the Mysql database. It mainly contains two modules: ADMIN and USER. Users include modules such as register module, login module, order fuel, track order, onsite assistance module, toll card recharge module, car insurance module. Administrators can access and modify all aspects of the application. The result of the project will be an Android application that allows customers to order fuel. Customers can find out the availability of all fuel stations and fuel stations nearby. It also helps owners track their orders. Administrators can schedule and update availability status in the portal.

I. INTRODUCTION

The car must be physically arriving at the fuel station to refill. The fast pace of modern life and busy business demands innovation. to meet these demands, Fuel delivery application is being launch Smartphone's have become essential, and most people always have one on hand. Smartphone's have been considered a blessing as it has many capabilities and is not just limited to calling and text messaging unlike the regular mobile phone. It can be utilized by converting it into an emergency safety device that can be used when users are placed in a trouble making situation. It will ease the process of getting help by allowing users to quickly notify people of an emergency with a various feature.

To resolve the on demand fuel supply this application has been introduced which works as a fuel service provider. One can fill his car without going to the fuel station just by using this application. The user has to simply download this app on their phone, register their details, and order fuel. It is a location based app. One can order fuel from anywhere at any time. This application ensures timely delivery of fuels to the customers. This application uses digital technology to remove location constraint. It works in simple, safe and reliable way to fulfill the need of the customers. Uses latest technology and streamlined delivery mechanisms.

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Fuel Delivery Application the B2C portal provides customers with online fuel ordering services, including a comprehensive online fuel purchasing process such as online booking and order tracking.

II. LITERATURE SURVEY

This section presents current innovations and accepted practices that were previously integrated into various journals and articles related to Fuel on Demand. The purpose is also to briefly introduce the advances in the technology used. The first trusted distribution associated with the selected project will be done by Nielsen. The title of the report is "All India Survey on Diesel and Fuel online Demand by Sector". This report is from the Ministry of Oil and Fuel of India. This shows India's oil demand.[1]

The following paper was written by Sunil Chandrasiri. The title of the paper is "Demand for Road Fuel in Small Developing Countries". This paper was disseminated in a 2016 ResearchGate article. Reveal the economic impact on fuel demand.[2]

The following paper was written by Areeg Abubakr, Siddig Ali and others. The title of the paper is "Fuel Management System". This paper was published in the Institute of Electrical and Electronics Engineers (IEEE) Journal on January 16-18, 2017. Clarify monitoring of fuel sales.[3]

The following article was written by Luis Rivera Gonzalez, David Bolognio and others. The title of the article is "Long-term Forecast of Energy and Fuel Demand for Ecuador's Sustainable Road Transport Sector (2016-2035): Applying the LEAP Model". This article was published in the MDPI Journal on Energy and Fuel Requirements for 2019.[4]

The following paper was written by Pradeep Agarwal. The title of the article is India's Oil Demand: Empirical Estimates and Future Forecasts. This paper was published at IEG University in Delhi in 2012. This clarifies India's oil estimates.[5]

The next application, Cafu, is one of the leading UAE companies helping to free fuel stations.[6]

III. IMPLEMENTATION

The project mainly consists of register module, login module, order fuel, track order, onsite assistance module, toll recharge module, car insurance module.

Register Module

The registration module requires users to register with the application before it can be used. The registration module requests specific information from users and fuel stations. User registration requires you to provide information such as your name, contact number, email ID, username, and password.

Login Information

The user needs email id and password to login to the app.

Order Fuel

When users register with the application, they can order fuel as needed. Users must enter their credentials after they have access to the services provided by the application before they can use the application. To order fuel, users must first find a nearby fuel station and check the availability of fuel at that particular fuel station. After checking the availability of fuel and services, users can order fuel as needed.

Onsite Assistance Module

If in case the person is stuck on a road due to car breakdown, not knowing the reason of the breakdown, they can simply call for the assistance by using this app and providing the location.

Toll Recharge Module

This application also helps the user in recharging their toll card within minutes witn few clicks on the app.

Car Insurance Module

Users can renew the insurance of their car simply by using this application.

Track Order

Once an order is placed, the user can track the order, whether the order was accepted, and whether the order was delivered. To receive order updates, the fuel station must approve or reject the order and update the order status.

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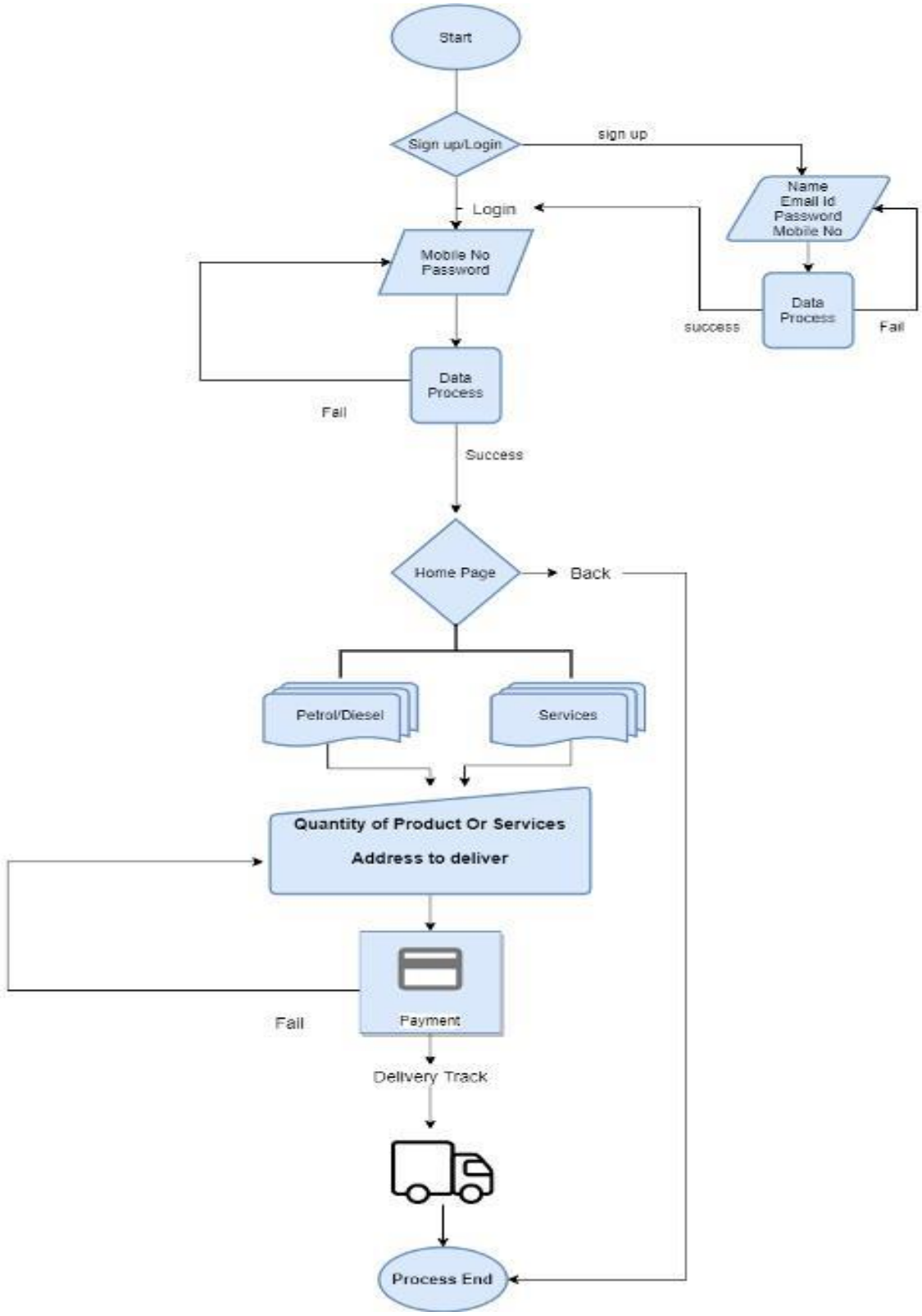
The block diagram of the project is simple but robust. This is a block diagram consisting of all the important modules. The following figure shows the complete flow of the project architecture and process. It shows the overall architecture of the constructed system.



IV. ANALYSIS REGISTRATION PAGE

This is the page where users and admins need to enter the details required to register with the application, where the username must be unique.

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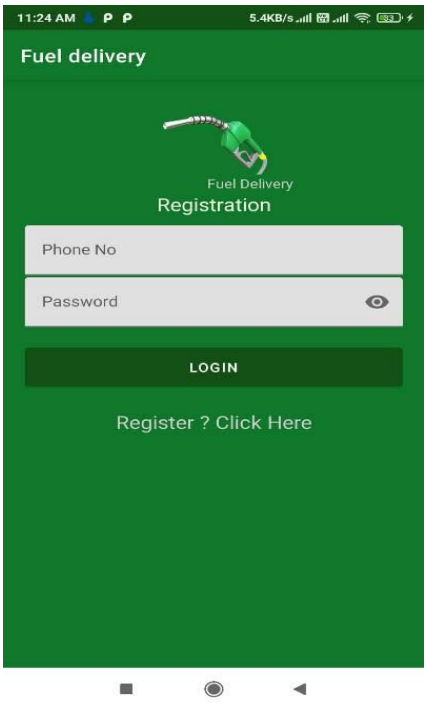

Fig 1: Registration page

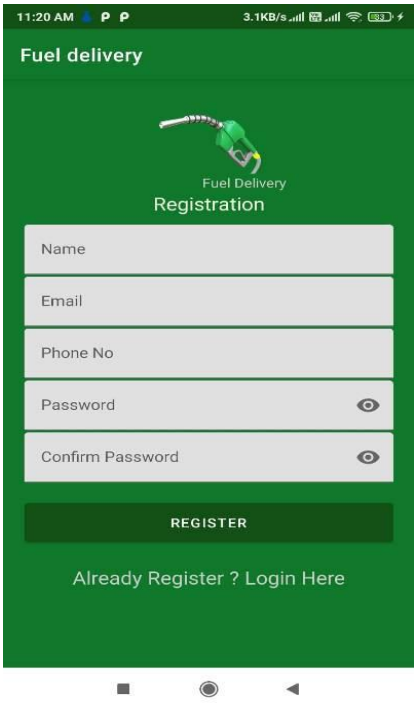

Fig 2: Login Page

Main Activity: This is an activity that is displayed when the application is launched and allows the general public to select a profile to log in to.

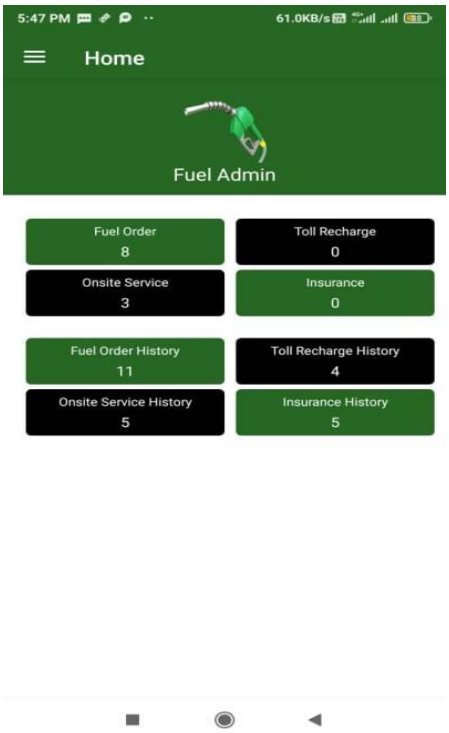

Fig 3: User Home Page.

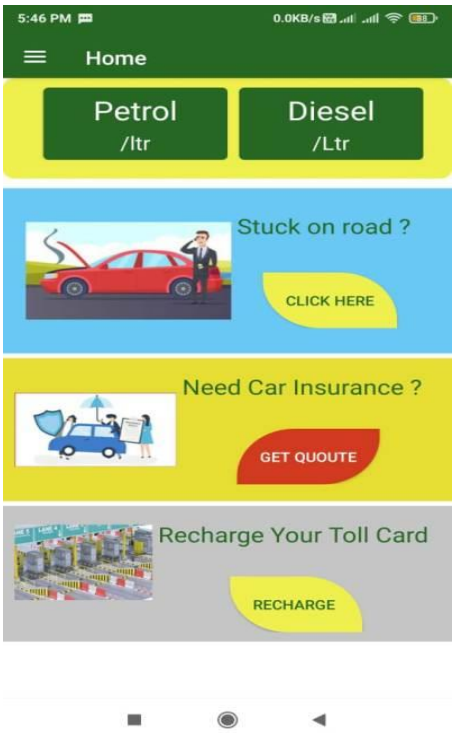

Fig 4: Admin Home Page

Map Activity: An important activity that a bunk bed owner will see when trying to register a fuel station. The exact location should be marked using the activity map markers.

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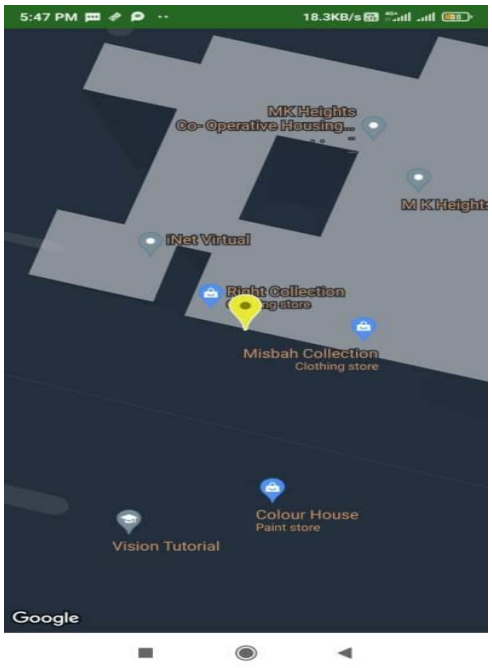

Fig 5: Map Activity

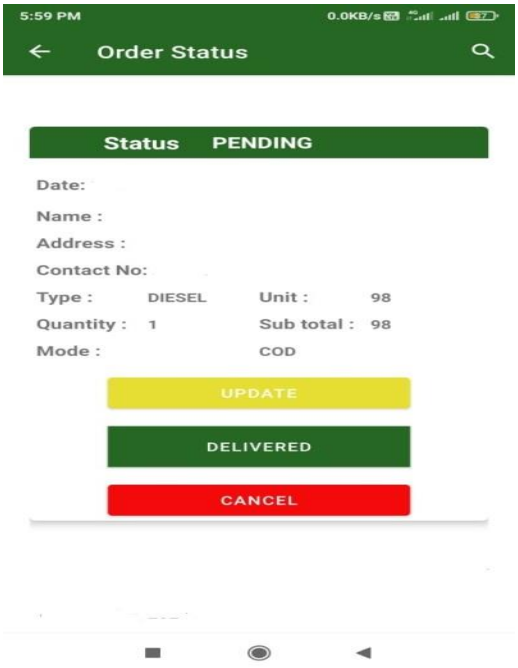

Fig 6: Admin Order Status

Place Order: This form is displayed when the user tries to order fuel. This form contains many fields for collecting the information needed to deliver fuel.

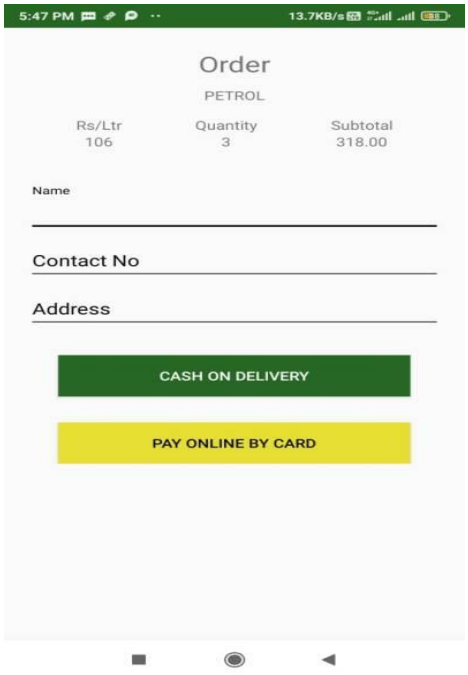

Fig 7: User Order Page

V. CONCLUSION

This project will reduce the amount of fuel required by supplying fuel. If the user is in urgent need of fuel, the user has the option to order fuel from their current location. The application has three options: home screen administrator, bank, and user, so users must select the appropriate option to log in to the application. The first time a user uses the application, they have the opportunity to register. So, he has to enter and register the required data. Users can order or cancel fuel. To order fuel, you need to enter the amount of fuel. The user's location is tracked using the device's live location, allowing the user to view and select the closest fuel station within a particular threshold. When a user reserves fuel, the order is sent to their respective floor managers and the order placed by the user must be processed.

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