

Refuel Now

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Abstract— Refueling the vehicle at a gas or fuel station is one of the most insipid activities in our lives. If fuel hit the rock bottom of a fuel tank, this can be very frustrating at points as a person is stuck in the middle of nowhere and have to rely on other vehicles. It would be very convenient if we had an application that could help us to order the fuel at our location with just few taps.

Keywords— Refueling , Fuel , activities , convenient , activities etc.

1.INTRODUCTION

o What is the project all about?

The project serving a new idea in order to resolve the problem associated with the traditional means of fuel retail which can be met via a doorstep delivery of fuel. o Why is the specific topic chosen?

The project idea came by the research estimates that one billion gallons of fuel are wasted annually while driving to fueling stations. An average commuter ends up wasting three to four hours per month in travelling to petrol pumps. Also observing the current scenario that is of pandemic, it is needed to lessen serpentine queues at the fueling stations. Hence, there is a need to develop a system which will be helpful to eradicate all these problems.

o What could be the probable problems that would be addressed during the course of project?

- ✓ Time wastage of commuters.
- ✓ Wastage of fuel & cost of it.
- ✓ To reduce carbon footprints.
- ✓ Lessen the serpentine queues at the fueling stations.

✓ Curb pilferage, which is one of the biggest issues faced by the oil sector.

✓ Transportation of fuel for generators and heavy machinery, using jerry cans which is both cumbersome & time-consuming. ✓ Traditional system in this pandemic become tedious and needs to be improved according to vast growing population and available technology.

3. Objectives

✓ To develop an application for Fuel Delivery at your Doorstep for resolving the issues related to traditional system of fuel retail. The application will be useful for both end users as commuters and petrol-pump owners where petro products will be door delivered to users on pre booking.

✓ To save excessive time of consumers waiting in long queues at the fueling stations.

✓ To develop an on-demand fueling system and wipe out the inefficiencies of fuel pilferage.

✓ To ensure that fuel is not given out anywhere on the road or at an unsafe location for safety and security.

✓ To save environment and reduce carbon footprints.

4. Scope

As swift movement, fluency and punctuality are desired by every consumer so the proposed application will be very useful as it will be less cumbersome and time-consuming. It will allow commuter to escape serpentine queues at the fueling stations. The government along with state-owned Oil Companies has taken one step further for the convenience of customers, with Indian Oil Corp commencing home delivery of diesel services.

Sanjiv Singh, Chairman of Indian Oil was quoted as saying, “In a move to make availability of daily use fuel for consumers, even in far-flung areas, Indian Oil has launched home delivery of diesel on a pilot basis in Pune. We plan to expand its doorstep delivery to other parts of the country in near future”.

This move could lead to fuel delivery becoming a major market in India. Door-toDoor delivery could spiral into a major market in India soon as oil companies in India are planning to engage start-ups for doorstep delivery of the fuel through mobile petrol pumps.

This move will benefit large fleets of commercial vehicles as it will save both time and money for the fleet owners. Apart from the fleet owners, the move will also benefit people in remote areas, where fuel stations are located at a distant place.

An app becomes a success only when it checks some important boxes for customers as well as for businesses. With on-demand fuel app, here's what you are offering, and what your customers are willing to take it on hand.

2.RELATED WORK

Refuel now provides online fuel ordering and delivery software, which can seamlessly integrate into the system. We provide complete fuel management software to automate your fuel business to reduce your manual works and increases your revenue. Refuel now is for the people who wants to run fuel business and wants to run his/her business

successfully. Any entrepreneur who wants to do business by adding multiple fuel vendors & earn a commission from each vendor. With our service at disposal, now the users are heave a sigh of relief. Not anymore, they would have to run towards the gas station in order to get their vehicle tank filled and this certainly would make the daily commute for them immensely hassle-free and convenient. The fuel supply will reach them at their doorstep as and when required by simply using refuel now. I But before that let's understand how refuel now works for you. In refuel now, user will be able to order the fuel on our website. Firstly, the user will have to register himself/herself. After registering, user will be asked to login. After logging in, user will be asked to fill the order details form where we will be asking the user location/address, pin code, contact number, date and time, and quantity of fuel. After filling all the details, user will receive an invoice where all the billing details are there and will be asked to confirm the order. When user confirms the order, he will be assisted by one of the fuel pump operators on a phone call. The mode of payment will be cash on delivery for now. When we talk about online delivery of the fuel, the market is blooming at full pace. Making it easier for the users and the suppliers is one thing, the major part is making it accessible for all. Considering the fact that the fuel industry has moved to technical advancements a little late, there are many benefits of the technology in the fuel industry :

□ Time -Saving

Accept the fact that none of us really liked making this tiresome effort of going to a fuel station and waiting for the turn in order to simply get the car's tank filled. But with refuel now, we can save a lot of our time, energy and efforts by simply booking and ordering the fuel at our doorstep whenever required.

□ Great Help for Emergency Situations

This is even a savior for emergency situations . Whether it is emergency roadside help, where the fuel is delivered to faraway location or for the early mornings when you have to head out with your car

for an urgent visit, but the car tank is empty. Simply book on refuel now and it is all done.

□ Greater Customer Loyalty

No one likes standing in long queues waiting for their turn to fill their vehicle's fuel tank and often they leave the fuel station in case they are a long queue, and hence the fuel service providers end up losing many of their potential customers. However, refuel now allows the service providers to cater to the needs of customers as and when they require and this helps in building higher customer loyalty at the not much-added expense.

Refuel now is a great platform for both customers and the service providers as it helps the user to save time and the service providers to generate more revenue. Exceptional quality

Almost all oil and gas companies are concerned with fuel adulteration. Fuel adulteration is the main explanation why you will hear locals recommending which gas stations are decent and which are poor.

You will greatly reduce the problem of fuel adulteration by creating an on-demand fuel distribution app. On-demand fuel distribution necessitates the use of vehicles to complete the operation. And you are loading those trucks nearly every day, which stops petrol from being stored for an extended period and eliminates the risk of adulteration.

Time-saving system

Uber lets users save a lot of time. On schedule, a cab arrives at your doorstep. Users do not need to think about driving to the main lane, waiting for a taxi, or getting to their destination. Just the same, they are concerned with making it on schedule. Uber avoids the whole procedure and saves a lot of time by delivering doorstep taxi services. On-demand fuel distribution has a common purpose in the lives of consumers.

Filler in a Hurry

Another requirement you are meeting with your on-demand gasoline app is emergency fuel supply. People sometimes run out of gas in the middle of the road where there is no local gas station. People can even discover that their cars have run out of gas in the morning,

as they arrive at work. In certain situations, you can have emergency fuel on demand 24 hours a day, seven days a week.

3.METHODLOGY

1. Participation in "Now" Era

Today's era is "now" era. If something is available here and now, it is the first choice of users. Uber offers cab services at doorstep.

Domino's delivers food within an hour to fill our empty tummy. On-demand fuel app belongs to the same era. It delivers fuel right at our doorstep. No need to take vehicle, go out, wait in long queues, and refuel your vehicle's tank. On-demand fuel app cuts through all the lengthy process and come directly to the home to deliver the required fuel.

By making an on-demand fuel app, you will become a part of this "now" era. Talking about the future, we all know that the day is near when we don't require leaving our comfy couch at all.

2. Revenue Opportunities

Worried about revenue?

As we are talking about fuel here, your worries are obvious. Well, in case of Ashish's MyPetrolPump app or Startup, they charge \$2.79 as flat fee for 200 litres of fuel. That would be fees for big organizations with big requirements. After that, they charge approximately 1-2¢ per litre.

So, if you are worried about revenue, ondemand fuel app is open with many doors to knock on.

3. Problem Solver

Solving users' daily problems via tech is a surefire way to pave the way in users' hearts as well as in your business world. With ondemand fuel app, you are solving users' daily problem. Once you become a part of that arena, nobody can stop your startup to become a big brand.

4. High-Quality

Fuel adulteration is a worrying matter for almost all oil and gas industries. Fuel adulteration is the key reason why you hear locals saying which places are good and bad for fuel. By developing an on-demand fuel delivery app, you will diminish the fuel adulteration issue up to a great extent. On-demand fuel delivery service requires trucks to finish the task. And you are refilling those trucks almost each day which prevents the storage of fuel for a long time and adulteration problem doesn't occur at all. That means you ensure a high quality fuel which would remain first preference for users over other petrol stations.

5. Time Saver

Uber saves a lot of time of people. The cab giant reaches to your doorstep on assigned time. Users don't have to worry about going to the main road, wait for the cab, and reach the destination. All the while worrying about whether they will ever make it on time. By offering doorstep cab services, Uber cuts out the entire process and saves enormous time. On-demand fuel delivery plays a similar role in users' life.

6. Emergency Filler

One more demand you are fulfilling with ondemand fuel app is emergency availability. People often face fuel issues in the mid of road where there is no nearby access to fuel. Or in the morning, at the time of office, people find their vehicles running out of petrol. In such cases, you can offer fuel on demand 24/7 at the time of emergencies

2.1 Challenges

Challenges always come along with opportunities. On-demand fuel app is no different. Here are the set

of challenges it represents. Fortunately, they are less than opportunities.

1. Legal Issues

Government issues are always there when it comes to oil and gas industry. Ashish faced similar legal issues during initial periods of his fuel delivery app startup. The startup received approval from Ministry of Petroleum and Natural Gas, but failed to impress Petroleum and Explosives Safety Organization (PESO). Some even saw it as an illegal and threatening idea.

To survive the legal challenges, MyPetrolPump took a year to design trucks that keep threats at bay. Finally, after adopting necessary security measures, the startup received full support from the petroleum ministry.

When you step ahead to build an on-demand fuel delivery, you will face legal issues. But if you prepare your startup to beat the threats, you can easily pass these legal challenges.

2. Designing Safe and Passable Trucks

It's not all about designing an app like Uber where the responsibility of cars is on drivers. Fuel is highly sensitive to leaks, air, and combustion. So, the designing of trucks comes to you. MyPetrolPump built air-tight, theftproof, and combustion-proof trucks. The startup even took care that trucks shouldn't be too large to fit in various areas.

3. High Tech System

Not only security, but you have to build trucks featured with high technology. These trucks must include fuel quality monitoring system that can tell you the details of adulteration and impurities.

That's it. Take care of these challenges and you are good to go for a fuel delivery app.

4.RESULT AND DISCUSSION

✓ Refuel Now is the on-site fuel delivery service that comes to customer's location and delivers fuel directly into equipment when and where user needs it.

✓ At very first customer have to register them as user and for delivery service, petrol pump operator also have to register them. ✓ Now whenever a user wants to refuel the vehicle, all they have to do is login and make a fuel request via the application order detail form by having them provide their exact delivery location down to the house number to avoid any confusion while locating them. ✓ Later comes the time to place order. This process is smooth & hassle-free. The customer can place the order for fuel in a few taps. The order is

placed instantly.

✓ From here the next step is for the petrol pump operators, they will receive the request and basis the schedule chosen by customer, they will contact them.

✓ When fuel is delivered efficiently and in reliable manner receipt will be generated.

✓ At last user can complaint (if have any) and can also share their feedback after using service.

5.CONCLUSION AND LIMITATIONS

Fuel delivery systems are very important for working of a vehicle, as they provide necessary fuel to the engine. The various parts of the fuel supply system analyze conditions inside the vehicle and adjust to the conditions a to operate the vehicle as efficiently as possible. If any of the components in the fuel supply system fail, the vehicle will have a significant drop in performance, or will even stop working. Though installing a fuel supply system is far from a beginner's job, it can still done in an individual's own. Going to the fuel station to refuel

your vehicle is still a norm in this age of On-demand and instant services.

However, things are changing slowly with the advent of fuel delivery startups in various parts of the world. This application is a feasible solution to satisfy the need. Refuel Now eliminates the loopholes and it converts the highly unprofessional, unorganized way of carrying fuel to professional and organized way. Implementation of this application can be a power booster and add another star in Digital India and Skill India Campaign. It can be said that the only and one major challenge comes in the form of safety. For the concept of an ondemand fuel delivery application development, safety must be ensured at all cost and this concern needs to be addressed honestly, or it can even end up in a fatal accident. Ondemand fuel delivery is the future of fuel industry. For users it's a superior alternative to the fuel stations. Now, is the right time to invest your money in the fuel delivery software as it's still at a nascent stage of rapid growth. Current leaders in various countries have already showed us how successful it can be. Surely there are few challenges which you have to face, but with the right strategy you can accomplish them all. So, don't waste any time and find a suitable development company to build your own fuel delivery solution that would boost your on-demand fuel delivery business. The government's move to allow start-ups into the diesel delivery sector augurs well for the sector as well as the overall economy. The easy availability of diesel will also increase the pace of market expansion and reduce the overall inefficiencies associated with the conventional fuel delivery services. Hopefully, this will be the revolution that Indian fuel delivery ecosystem was eagerly waiting for. Thus, if you are someone who is looking to launch your own on-demand fuel delivery app in the market for your fuel business, then it is imperative that you take the necessary precautions & measures, restricting any kind of unauthorized entry and cutting off the main tanks in case of an external fire. It should be ensured that the regulatory amount is not exceeded for additional security. Now that you know about the challenges, next, it is time to explore the many benefits of a gas ondemand app development.

5.1 LIMITATIONS

With the rise in population across the globe and increasing spending ability, there has been a surge in the purchase of vehicles. This, as a result, has boosted the requirement of on demand fuel delivery....But on the other hand there are some drawbacks and limitations of our project

> application requires internet connection

> To make an innovative idea marketable, a good amount of capital is needed

> it has become quite difficult to recognize the ones with genuinely innovative ideas and then try to transform those ideas into reality.

> this system is still in its nascent stage

> Lack of Safety

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