AQUA: Smart Water Supplier

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***Abstract*—** Online shopping progress have been so drastic that it has evolved to be a part of our life. Today customer does not drive down to some shop for buying a product but preferably check over the internet for price, offers, reviews and order online. In most of the metro Politian cities water containers are purchased from shops for their basic needs of day-to-day life. The current system working procedure is customer calls/drives down to shop to order the water container by providing the shopkeeper a deliverable address and then a delivery person delivers the order to customer's house, as this system works totally offline and has lot of disadvantage. The major drawbacks in current offline system are repeated calls from and to customer, if various orders are placed from same locality the delivery person travels various times, there is no track of order, etc. This paper proposes an android application for water vessels ordering and delivery management system, where customer can order over an application by searching the nearby shops which provide the service and make payment online. This proposed system helps in overcoming the major drawbacks of current system. This application provides help for seller; it rather helps in developing digitally empowered society.[1]

Keywords— Android, Water crisis, Delivery, Feedback.

1. INTRODUCTION

When a crack occurs in the water tube, water crisis occurs. Due to the crack in water tube, the water gets wasted and the area where the water supposed to go becomes impossible. Therefore, those areas suffer from water crisis until the water tube is not fixed. Throughout the crisis, the people living in those zones are not able to get water directly; hence they need to get in touch with the nearest water tanker seller who can provide the supplies to those individuals living in those areas. This common approach takes lot of time and efforts to contact to the supplier. And there becomes a good probability of miscommunication in terms of water requirements, the location and address and contacting the supplier itself becomes a monotonous task. To overcome this problem, this project tries to create a platform for the end users who need water. This platform will connect the water suppliers to the end consumers with the help of a mobile application. Where users can put their location, contact details and requirements, and order the supplies in a very well-organized way.[2] The app will have more features apart from this such as supplier's shop location, for the latest updates and so on which we will be looking further in the document. The aim of this project is to provide a user-friendly application for its users. It is developed using Java, XML and Android Studio IDE. The application will be very useful for having update on water crisis and ordering water online.

Aim of proposed system.

This project aims to develop an android application to solve problems during a water crisis by providing various suppliers location and details and a support system for their query and a notifier by creating a news section on the app. And along with this the objective of our final year project is to show the marked area on the map which will reflect water crisis affected areas. The objective is also to create a feedback section for better understanding about the user's requirements. The water ordering system will have an authentication unit which will authenticate users and activate the water ordering system for him/her. The objective of this project is also to have an easy to use and creative user interface and an efficient programming done to the application for fast user experience.[3]

2. LITERATURE SURVEY

Smart phone is considered an important innovation that has changed the human life in several aspects. Android has emerged as the most widely used operating system in Smart Phones. Android operating system is open source and freely accessible to everyone. On Android operating system, many applications (apps) are available for fun and entertainment. With cut-throat competition for various examinations, students have

moved from conventional way of learning to M-learning for preparation. This paper also highlights various challenges faced by developers in Android App Development. Nowadays, technology is increasingly used by human being in every field.[4]

As people move from one place to another, many wireless technologies are available to remain in contact with others, without regard of the location. The increasing popularity of Smart Phones has drawn the attention of almost everybody. Along with making and receiving calls, users can send and receive messages, access the Internet, digital media, incorporate audio/video recording etc. Smart Phones also contain built-in keyboard, high resolution camera, front side camera for video conferencing, touch screen etc. Different smart phones have different operating systems. A mobile app, short for mobile application or just app is an application which runs on smart phones, tablet, or mobile phones.[5] Apps are pre-installed or downloadable pieces of software that can do almost everything. Apps make mobile more like portable computers having multi core processors, gigabytes of memory and a real operating system. An app can show the data in a similar way as a website, along with other benefits to download the content that can be used offline in case the Internet is not available. There are many apps available in market today for different Operating Systems i.e., Android, Blackberry and Apple etc., in which Android is having the maximum market share these days.

3. PROPOSED SYSTEM

To achieve all the above aims and objectives and to solve the above problem statements, we will be creating an android application by using Java as our programming language and android studio as our IDE (Integrated Development Environment). The proposed system will cater following features.

- Online booking system.
- Water Supplier's Shop / Office Location.
- Water crisis marking on the application.
- Recommendation of nearest water supplier to the user.
- Water supplier details.
- News Section.
- Variety of tanker options to choose from.
- Contact Us Section.
- FAQs section.
- Feedback section.
- Rating section.
- Registration, login and edit profile section.
- About us section.

The motive of this android application is to allow the user to provide interactive and easy to use interface through which a user can order water online from different sellers and can get regular updates on water crisis. Below is the flow diagram of proposed system.

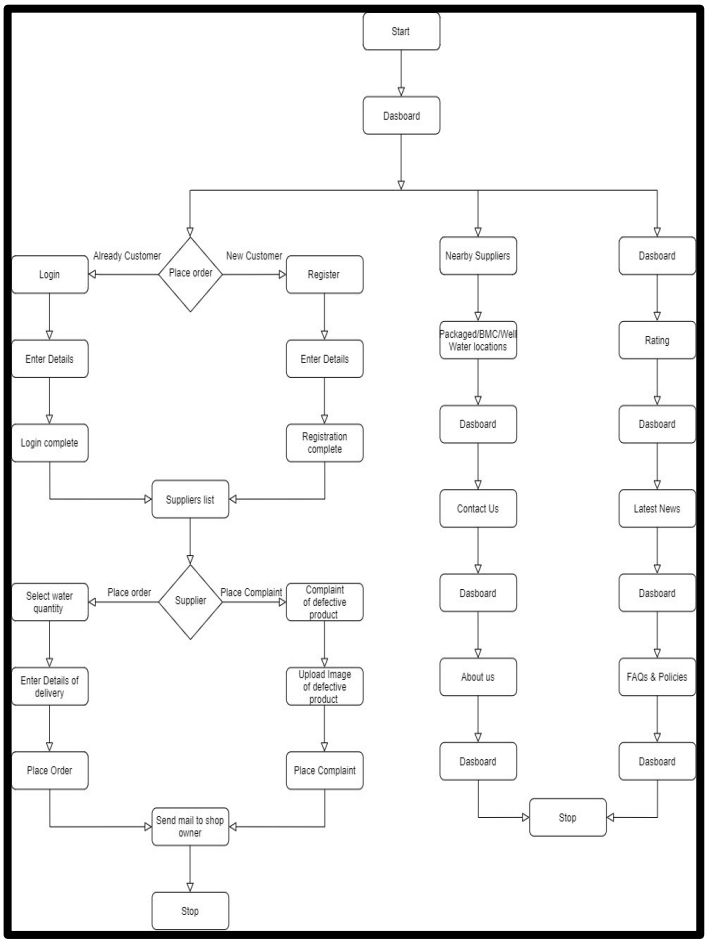

Figure 1: Proposed System

4. DESIGN

The given diagram shows how application works and how users interact with it. It shows the way in which interaction occur.

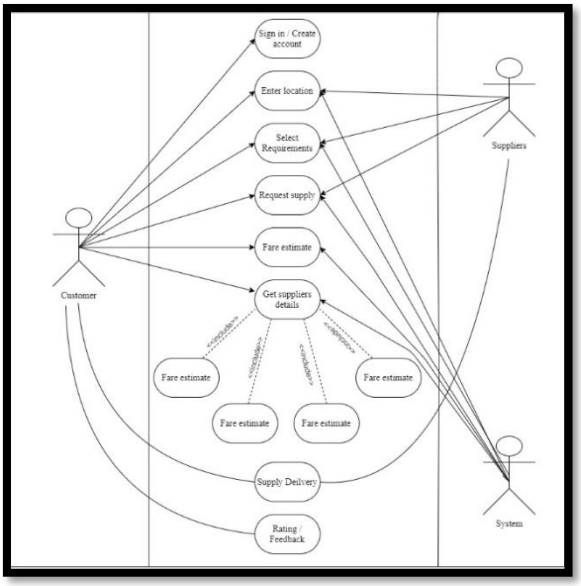

Figure 2: Use Case Diagram

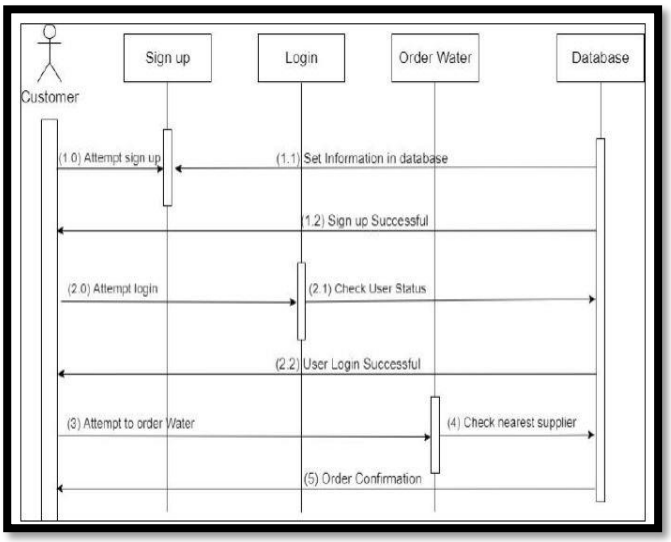

Figure 3: Sequence Diagram

5. METHODOLOGY

Initially the user will log in to the system to place a booking for the water supply. The user will be greeted with the user interface from where he / she can place an order. Automatically the current location of the user is fetched in the application or else he / she can change the location by typing the location. The user will enter the requirements, then he will be shown the estimated price which he has to pay the supplier at the time of delivery after this, the user will press on place order the request of the user will get pushed to the supplier he chose. In the next part, the user will be able to track his / her order in the application once the order is placed successfully. Other things which user can do are, he can read the news sections where water supply related news will be posted by the administrator. In another section of the app, the user will be able to see.

Along with this, he will be able to see the contact details and other details of the supplier. In another section of the application, he will be able to see a marked location marked by the administrator during water crises. The user will be also privileged with the Contact us and FAQs section through which he can places his / her query on the app, and which will be solved by the administration team as soon as possible. The user will also be able to edit his/her profile. Along with this, the user can rate the application and can give feedback though which we can understand the user requirements better.

6. APPLICATION SCREENSHOTS

Figure 4: Dashboard Activity

Figure 5: Login Activity

Figure 6: Forgot Password Activity

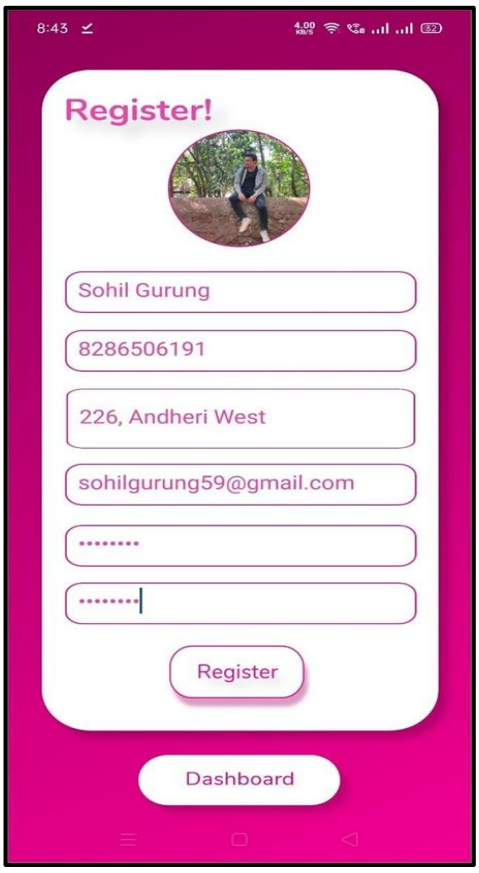

Figure 7: Register Activity

Figure 8: Edit Profile

Figure 9: Add Balance Activity

Figure 10: Suppliers List Activity

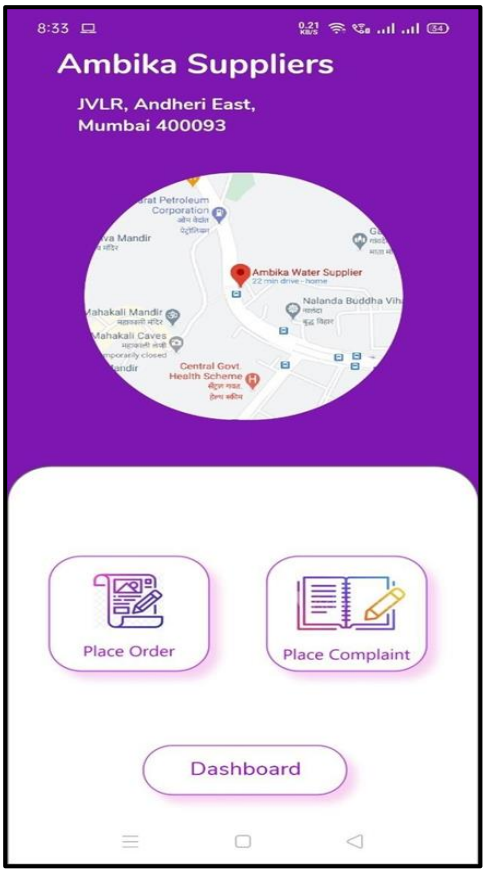

Figure 11: Suppliers Activity

Figure 12: Place Order Activity

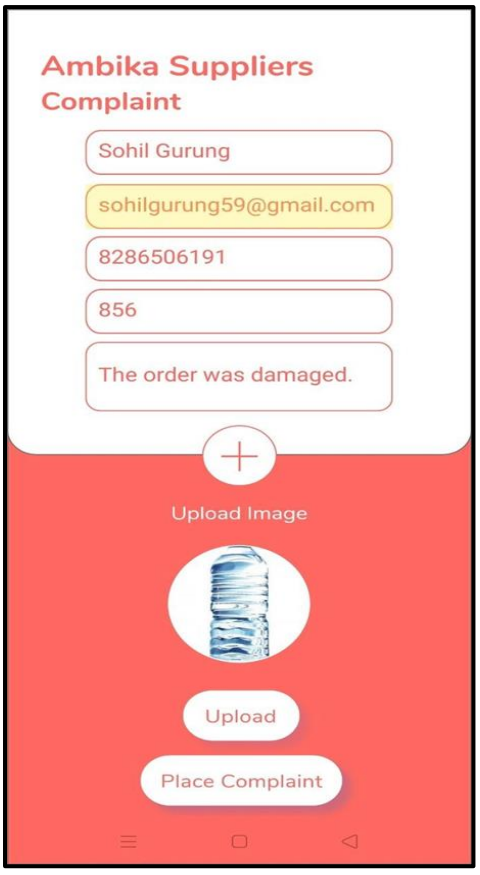

Figure 13: Complaint Activity

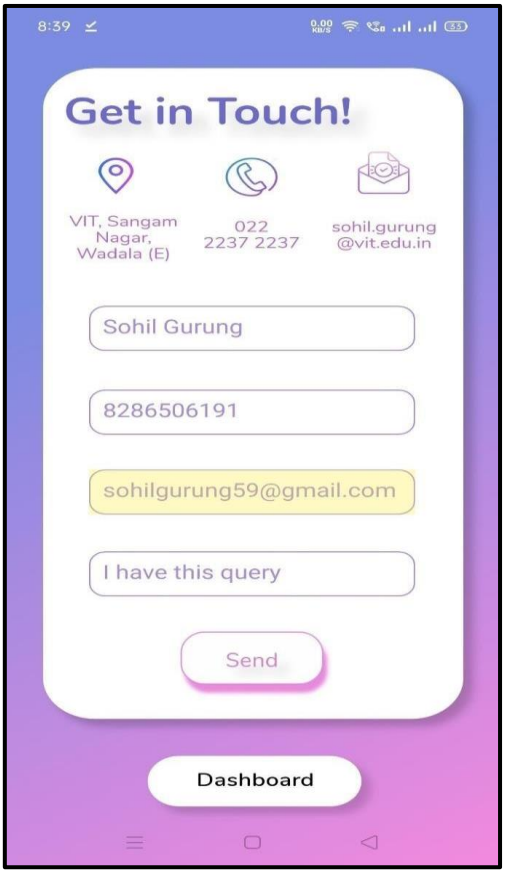

Figure 14: Contact Us Activity

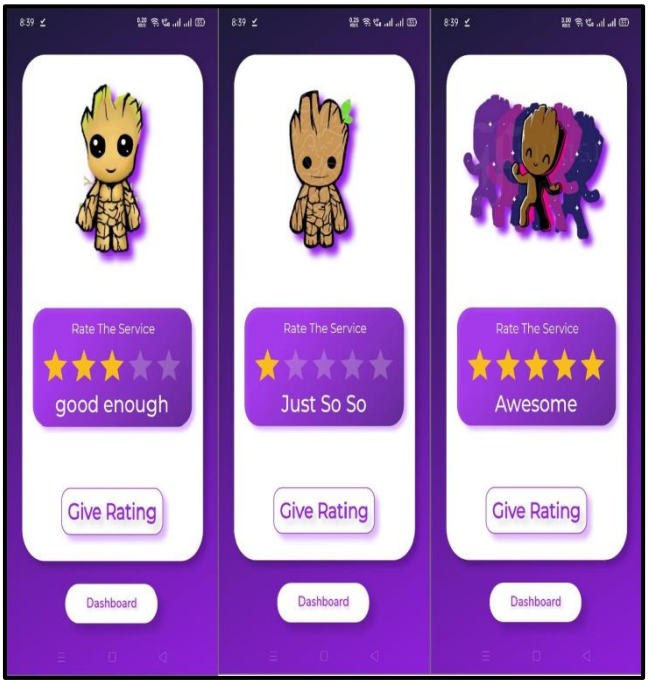

Figure 16: Rate Us Activity

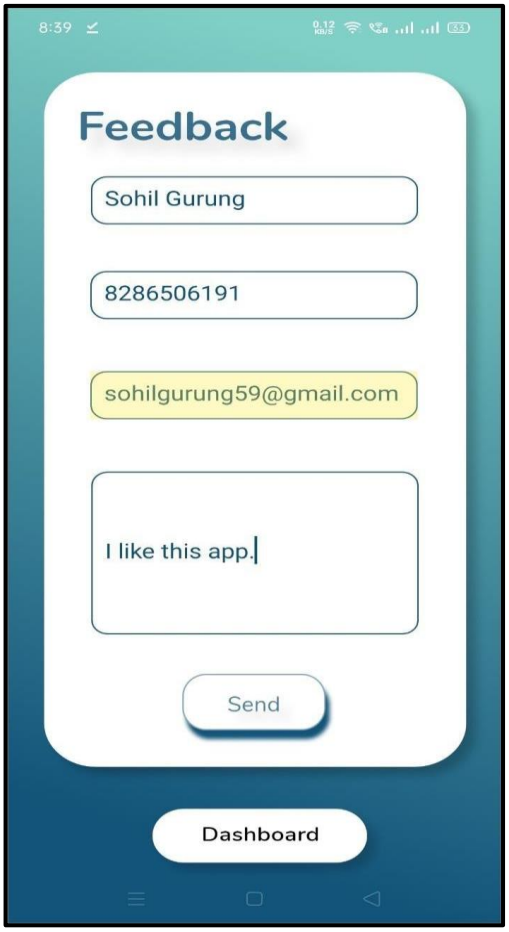

Figure 15: Feedback Activity

Figure 6.17.: About Us Activity

7.CONCLUSION

The current working strategy is old fashioned and there is no usage of commonly used technologies like internet, & android. Thus, it can be concluded that the proposed application effectively provides the solution to current working method. This application introduces facility for customer to place orders, place complaint (if any) and give feedback to seller. It also helps the shopkeeper to maintain records systematically and reduces a lot of paperwork and manual efforts. The application provides lots of advantages like shop locator, customize orders, enhanced user interface, delivery options, order process estimate, order status and may more.

8.FUTURE SCOPE

Advancements in a project such as Better optimization can be done, live tracking of order can be added, recommendation of nearby suppliers based on customers order, currently this app is based for ANDROID user only for IOS user same app will implemented, these features are left as a future scope to work upon.

9.REFERENCES

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