A MODERN APPROACH FOR DEVELOPING FOOD DONATION APPLICATION

[1]Vaishnavi P, [2]Sushmitha H, [3]Rohit N Ekbote, [4]Darshan K, [5]Akhil Menon

[1 2 3 4]Student, [5]Assistant Professor
[1 2 3 4 5] Department of BCA,
[1 2 3 4 5] Jain University, Bangalore, India

Abstract : People waste food daily in a direct or indirect manner and as the population and economy is growing which increases the volumes of food waste. From what we've learned from our formative research, we decided to specialize in individual household donation. A large amount of individual household garbage is avoidable, especially in developed countries. Therefore, we would like to explore ways to encourage food donation from individual households. The Food Donation application is an android-based application that gives all poor people/organizations with a forum for donating leftover food. This project will be seen to be a powerful way of donating items over the interface to organizations, etc. Food pollution may be a troubling phenomenon in densely developed nations like India. Too much food gets stirred out from wedding ceremony, restaurants, taverns, social and family get-togethers and events. The system will bring them into rehearsal instead of losing these items by donating them to different organizations such as orphanages, old age homes, individuals, etc. Some entities and institutes want to contribute stuffs to organizations in need.

IndexTerms – **Food donation, Food Waste, Food Loss**

I.INTRODUCTION

This project or mobile application has much scope both in present and in future also. This project is a mobile application which can be used in smart phones that is android phones.

The scope of the development is any mobile device which as the access to its server on which the project has been deployed.ie the project is developed as an android application and it will work for a particular instate.

It is believed that a considerable amount of food waste would be avoided in households if the occupants are well-informed and aware of the application. So many application which is available will help the users to track their weight gain and weight loss, and the users have to enter a lot of details .This application has a wide scope in future as India is a developing country which consist of rich as well as poor people. Nearly people have access to a portion of things while some people can't even have enough money for a basic lifestyle. If this donation business will be put online then people can donate their extra stuff without any discomfort and those who really need this stuff can have these items. Moreover, this application will be of great use in case of a natural calamity like an epidemic break where people would be able to donate food and clothes in time of need to their fellow citizens of India. Hundreds of thousands of food is wasted in celebrations like a wedding or a party just because nobody wants to spend their time in finding people for donating their food so our application will ease their work as they don't have to take do anything but just register to this application and someone will pick up the items they want to donate from their doorstep. This application can bring a great revolution in solving the food crisis problem of India.

India is a developing nation and problems such as hunger and poverty are very common. Even though the governments are helping them by providing ration kit, etc. it is difficult for them to reach each and every one who is in need. So this is just a small contribution to them so it will be hunger free India . We should still develop this application to other platforms as IOS, and also shall try to expand our reach and the amount of help we provide.

II.LITERATURE REVIEW

An analysis of a community food waste stream has been done by Mary Griffin et. Al [1] Authors has explained how food waste comprises a significant portion of the waste stream in countries, contributing to ecological damages and nutritional losses and concern towards food waste management has been extracted.

Systematic literature review of food waste in education institutions: setting the research agenda has been done by Puneet Kaur et. Al [2] Authors has explained how in the recent past, theoretical scholars have renowned the amount of food unused in food facility institutions and in educational institutions and the resolution of this study is to accept this review and create an application.

Food loss in a hungry world has been done by Zoila Menacho et. Al [3] Authors has explained how food loss is happening in developing countries, food loss and waste is a problem that is difficult to measure. By using this study we proposed an application where donors can donate the food by dropping their details.

Identifying motivations and barriers to minimizing household food waste has been done by EllaGraham et. Al [4] Authors has explained how to collect food in an efficient way where many we used functions like Email and SMS notification system which helps the receivers to contact the donors in an efficient way. Donors can be the NGO's, Households, etc. This article focuses on household food waste reduction which needs people's inspirations and barricades to lessening domiciliary food leftovers.

Leverage points for improving global food security and the environment has been done by Paul C. West et. Al [5] Authors has explained on Keeping civilizations steady and management of Earth's resources sustainably depend on doing good, steady job producing and distributing food and to add on the functions like Google map intent which helps the people to locate the donors easily.

Food waste generation and industrial uses: A review has been done by Francesca Girotto et. Al [6] Authors has explained A series of solutions may be implemented in the appropriate management of food waste, and prioritised during a similar thanks to waste management hierarchy. Food waste is additionally employed in industrial processes for the assembly of biofuels.

The value of food waste: An exploratory study on retailing has been done by ClaraCicatiello et. Al [7] Authors has explained about, Retailers who are progressively worried about sustainability of their business. Food left-over is a most important sustainability issue ninety million tons of food is wasted every year. Therefore, major concern of this application is to provide the food to all the people who are in need of it and avoid the hunger.

Sorting out food waste behavior: A survey on the motivators and barriers of self-reported amounts of food waste in households has been done by Vianne et. Al [8] Authors has explained how to reduce food waste in households, interventions should focus on increasing consumers' apparent behavioral control over food waste and using this our application helps them be a good provider without wasting food.

Food Loss and Food Waste : A Literature review has been done by Suryadi Hadi et. Al [9] Authors has explained that in almost the last decade, food waste and food losses have become interesting topics among researchers. This review of literacy is carried out in order to determine the extent to which research on food loss and food waste is carried out and which inspired us to grab this idea to solve the food loss problem.

III. PROPOSED SYSTEM

The key objectives of the planned application was to make reduction in food wastage/food leftovers as much as we can and to feedstuff individuals who do not have enough food for one time to feed themselves. It's an enormous annoyance hard for them to look for food a day to feed themselves also for their families, and also for donors to succeed in bent them. This application comprises 2 modules: donor and receiver.
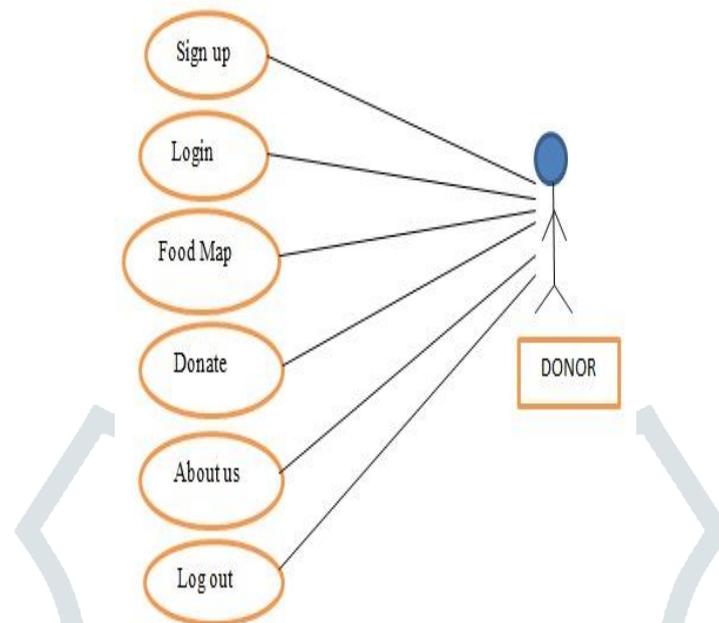

Figure 1 Use case Diagram of Donor

The user that is donor first has to register to the application and authenticate the phone number using OTP (one time password).The user has to login giving the credential like email and password that will be validated .The user that is donor as to enter the details to donate the food like name ,phone, email and address and description of the food .The donor details will be displayed in food map. In the about us attribute , the concept of the application is described and donor can logout as an when they wish.
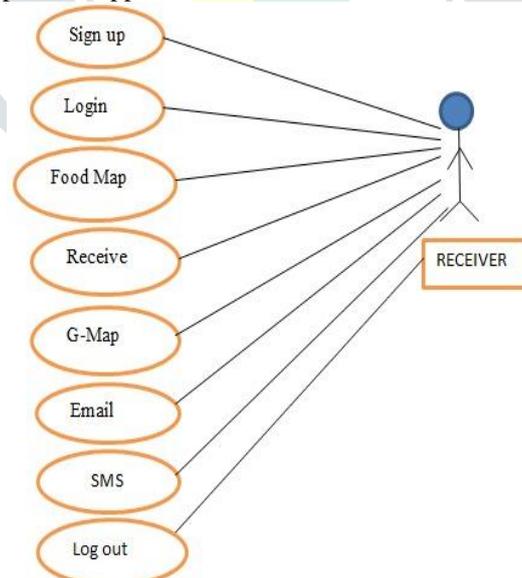

Figure 2 use case diagram of Receiver

The user that is receiver first has to register to the application and authenticate the phone number using OTP(one time password).The user has to login giving the credential like email and password that will be validated .The user that is receiver as to enter the details to receive the food like name ,phone, email and address .The donor details will be displayed in food map .The receiver has to see the food map and contact the donor using E-mail, SMS and track the donor using the G-map which is in the application itself. In the about us attribute , the concept of the application is described .The receiver can logout as an when they wish.

IV. Implementation & Results

Basically , this proposed project does not require so much investment with respect to time, this project can be completed within 6 months. This project is more cost-effective. By comparing the monetary reimbursements of this innovative scheme with the speculation. In this application, financial benefits are more compared to investments and expenditure. So this application is economically feasible. In this application the user don't need to spend any money this is mainly concerned to help the needy people.
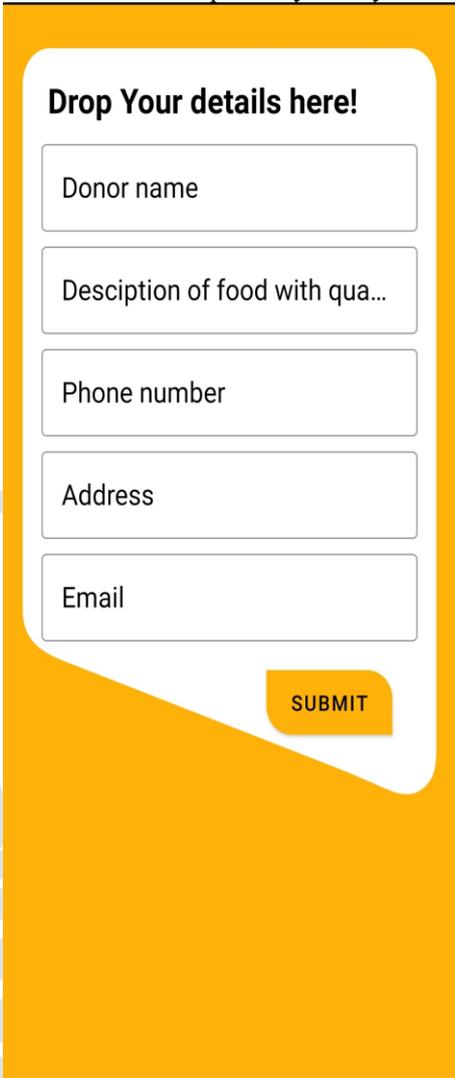
Figure 3 Dropping the food details

This is an intent in the application where all the donors who wants to donate the food can enter their personal details along with the food which they want to donate in the field called Description of food with quantity. By giving the personal details like name, email, and address can initiate a one to one communication between the donors and receivers in order to donate and receive the food with ease. Once the donor fills this page all these credentials and details will be stored in the Firebase's Firestore database.
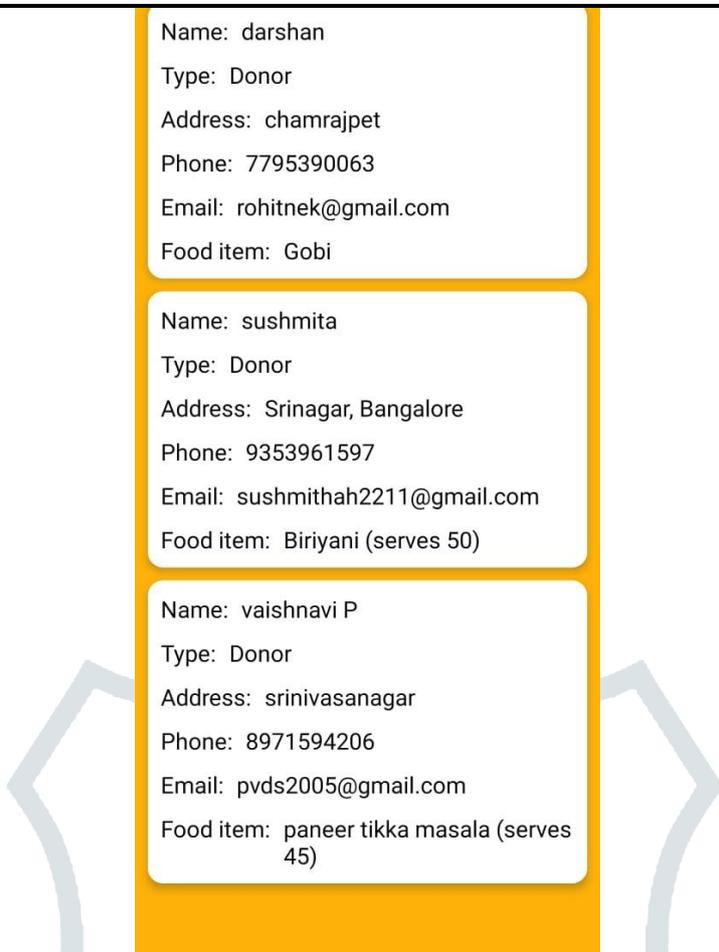
Name: darshan

Type: Donor

Address: chamrajpet

Phone: 7795390063

Email: rohitnek@gmail.com

Food item: Gobi

Name: sushmita

Type: Donor

Address: Srinagar, Bangalore

Phone: 9353961597

Email: sushmithah2211@gmail.com

Food item: Biriyani (serves 50)

Name: vaishnavi P

Type: Donor

Address: srinivasanagar

Phone: 8971594206

Email: pvds2005@gmail.com

Food item: paneer tikka masala (serves 45)

Figure 4 Retrieval of Donors

This is the main activity in the application where this page displays or retrieves all the available donors from the firebase database which helps the receivers to select the food which they want from the list of available donors.

V. CONCLUSION AND FUTURE ENHANCEMENT

This was our scheme of Project Structure about "Food Donation App" developed for Android based operating systems supported in Java language. The Progress of this method took tons of efforts from us. We think this method gave tons of gratification to all or any folks . However each chore isn't supposed to be flawless throughout this development pitch smooth enhancement could also be conceivable during this application. It can be said that if this application will reach to all the people of India than it is going to bring joy in life of many people as some will feel happy by donating food, clothes and books and the people who will receive these items will also feel euphoriated. This application can play a major role to help India become more developed in coming future by making all the citizen of India happy and prosperous. This application will help those individuals who agonizes from malnourishment and redemption, people who can't get books to educate themselves, and people who have to wear same torn old clothes in their daily life.

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