

AAHAR – The Food Donation APP

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Abstract - This paper highlights about the avoidance of the food wastage in the worldwide. The word “AAHAR” means food. In day-to-day life most of the people waste food. Eventually, it is mostly wasted in the any functions and parties like wedding functions and parties. This food wastage can be avoided through “THE AAHAR”. This is the which we developed to avoid the food wastage worldwide. This application is created based on the Java programming language in the Android Studio. Through this application the people can avoid the wastage of food by first installing this application from the appropriate source. Then as like other applications this application also has features and facilities like the tracking the availability of food with appropriate network facility. The food can to be donated if there is any need of food somewhere, by mentioning the menu in the application. If anyone is in the need of food, they can track the food menu’s available location. Then they can make confirm the food and they can buy the food. They can track the live location of the food where it is approaching. This app can be accessed all over the world from all countries, mainly this is prepared for all urban and rural area people for the avoidance of food wastage. You can also contact us in Instagram, face book, Whatsapp, etc. The product is an internet- based android application that basically aims at charity through donations. This paper clearly tells about the importance of the food and the one of the android-based application to avoid the food wastage by donating the food to the poor people or else by donating to any orphanage homes, etc.

Keywords – Mipmap, Kotlin, Java Programming, Android Studio, Emulator, Virtual Screen, Excess Food Donation Application

1 INTRODUCTION

In the introduction, we would like to encounter the features and the other technologies we have introduced in our application. This application is built on the Android Studio with the Java

Programming language and Kotlin. Java is of 80% and Kotlin is of 18% and JavaScript is of 2% used in our project. It is built mainly for the avoidance of the food wastage. We aim to develop an Excess Food Donation Mobile Application (Food rescue) to provide an efficient application for users to reduce food waste and enable any outlets or restaurants to donate food or meals directly into the hands of needy people in their local communities. The main objective of this is to design and develop this Food Rescue mobile application. The Mobile Application Development Life Cycle (MADLC) was adapted to the study. The Food Rescue can become an alternative option to help in reducing food waste and hunger.

A food donation Android application is a software tool that enables individuals and businesses to donate surplus food to those in need. These applications are designed to reduce food waste and help address food insecurity by connecting users with local charities, food banks, and other organizations that can distribute the donated food to those who need it. Food donation Android applications typically offer a range of features and functionality, such as the ability to post surplus food items for donation, search for nearby organizations that accept food donations, and arrange for the pickup and delivery of donated food items. Some applications also offer incentives, such as discounts on future purchases, to encourage users to donate surplus food. The use of food donation Android applications has become increasingly popular in recent years as more people become aware of the environmental and social impacts of food waste. These applications provide an easy and convenient way for individuals and businesses to donate surplus food, while also helping to reduce food waste and

support local communities.

In highly populated countries like India, food wastage is a disturbing issue. The streets, garbage bins and landfills have ample proof to prove it. Marriages, canteens, restaurants, social and family get-togethers and functions expel out so much food. Food wastage is not only an indication of hunger or pollution, but also of many economic problems. The high standard of living has resulted in the wastage of food, clothes, etc. because of quick changes in habits and lifestyle. Instead of wasting these things we can put them in use by donating them to various organizations such as orphanages, old age homes, etc.

2 RELATED WORKS

Maria Biju and her team made an application named “THRYPTHI” in 2022, which is also one of the food donation applications. Of the three basic necessities that humans have, food comes in first place. The other two are shelter and clothes. It is important because it provides nourishment to the human body, which enables survival. However, food waste has increased to unprecedented levels as the nation's population and development rise. A lot of individuals want to donate food to the underprivileged, but they don't know how to start. While several platforms have made an effort to let people donate food, the current architecture provides a new web application that provides a place for all underprivileged individuals and groups to donate food. This document on food donations creates a platform for donors and non- governmental groups to interact. Many applications related to food donations have been prepared in the recent years, the ultimate motive of every project is to reduce the waste of food, donate the food to the poor people and to donate the food on particular events like weddings, birthday parties, etc.

‘Aahar’ is a Smartphone Android program that offers donors and seekers a forum to donate and collect food after successfully logging into the system. The system is made up of three key modules: donor, volunteer, and administration. The donor completes duties such as registration/login and adds items to the donation request for contribution and viewing. The recipient completes activities like requesting products, displaying desired items, and claiming donations. The manager will monitor the collection and

upgrade it. The administrator and the donor will also see the recipient's position. The donor-donated objects will be visible to other users as a reminder on the donation tab, and the message will be preserved in the backend folder. A paper titled "Food donation portal" was published.

This is extremely important, especially during crises like the COVID-19 pandemic. This study focuses on developing an intriguing mobile application (app) called SeVa, which provides a ubiquitous platform for users to view available food resources in their local region and so obtain access to food, addressing two key issues: hunger and food waste. This app is relevant to the UN SDGs (United Nations Sustainable Development Goals) and fits into the broader category of AI for Smart Living in Smart Cities. In addition to utilizing IoT (Internet of Things) and ubiquitous computing, this effort has a significant influence on both healthcare and the environment by reducing hunger and food waste. We outline our SeVa app development utilizing principles from AI, particularly HCI (Human Computer Interaction).

In the Android and Web-based Application approach, either the Donor or the Recipient can register using the App or the Website. They will be able to log into the system after registering. Upon logging in, donation requests can be made by individuals or restaurants, and NGOs can request food donations. If the server is down, the user will not be able to insert or view details. Consequently, a drawback of single point failure exists. Incorrect inputs will impact the project's results.

In the study made by Dr. Sivarama Krishnan, regarding the application for the food wastage reduction, after a user successfully registers into the system, the proposed application which is android-based and developed using Android Studio version 4.0.3 using java and xml will offer a platform for donors and seekers. If a user wants to donate something, he or she can send a message in the application, and other users will see this notification in the donations tab.

The study regarding Waste Food Management and donation app made in 2022, the food donation application serves as a conduit between users who are seeking for a way to donate extra food without wasting it. It allows us to donate extra food by

informing users in the vicinity about what food is available; the necessary users then claim the notification, and the system distributes the food items according to priority.

In the food study prepared in 2021, the OTP verification took lot of time. Requires a continuous internet connection, and app modules load more slowly than normal. The application can only be used to offer services in a specific city. Before loading, the programme needs access to all permissions, including media, contacts, and calls. Despite being a fantastic initiative, usability and download numbers are low. The application uses cutting-edge methods to improve society and foster a sense of unity. After it is introduced, its social ramifications will undoubtedly work towards reducing the disparity in the standard of living among the less fortunate residents. It serves as a means of getting leftover food to those in need while also encouraging an increasing number of people to actively participate in the food donation programme. In the study about avoidance of wastage of food in 2023, the user must obtain food-related information from websites or from friends. It requires more human labour and makes it more difficult for users to discern specifics about a home. Place that home's meal order. The user must go through a laborious process to learn about the features of the home and retrieve the food from it. Even yet, depending on where the house is located, the admin's offered home data may differ.

3 PROPOSED SYSTEM

Aahar -The Food donation app which we have designed can be accessed throughout the world. There is no limited distance access, we can access a wide range of hotels, in which the food is available. This works based on the charity purposes and also free of cost. It is completely different from the old version of aahar available, that app is available only in 8 States of India but not in Tamil Nadu and also not available throughout the world, but this new version is worldwide. Checking the history of both donor and receiver access is also available. Provides security as compared to other mobile applications.

4 SYSTEM ARCHITECTURE

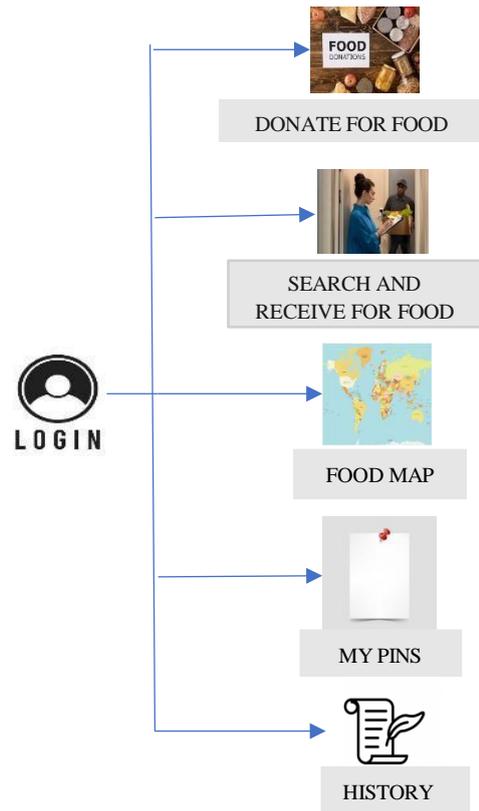


FIGURE 1

Figure 1 represents the system architecture of our food donation application. Here all the detailed information about different modules in the system architecture.

DONATION OF FOOD 1 REGISTER/LOGIN

Once you enter into our application you need to first register into our application if you are a new user. You need to give your personal details like mail id and set a strong password. If you have registered already and you are not a new user, you can just login into our application using your register mail id and password.

2 ENTER THE FOOD DETAILS

Once you have login, you can enter the available food items for the users to place the order. The donor can give their contact number, share their location and further they can add the description for any other details.

SEARCH OR RECEIVE THE FOOD

1 REGISTER/LOGIN

Once you enter into our application you need to first register into our application if you are a new user. You need to give your personal details like mail id and set a strong password. If you have registered

already and you are not a new user, you can just login into our application using your register mail id and password

2 SEARCH THE FOOD

Once you have decided to receive the food or search for food, click onto the receive food icon then you will get to know about the available food details nearby you, you will also get the location details of the donor.

3 PLACE THE ORDER OF FOOD

Then you can confirm the order by contacting them with the given contact number. If the donor confirms your order, you will receive the food.

FOOD MAP

Food map is used in our application you track the order and to check the location of the donor and receiver.

MY PINS

If you like anyone of the order's food taste, you can just pin the details of them from the history, those details will be shown here in the "My Pins".

HISTORY

History is used to tell about the donation and the receiving of food takes place. It will record the details for atleast 30 days that is 1 month, then it will be automatically deleted, or else if you want to delete immediately after the donation or the receiving the food takes place, you can erase those details from the history.

5 FLOW CHART

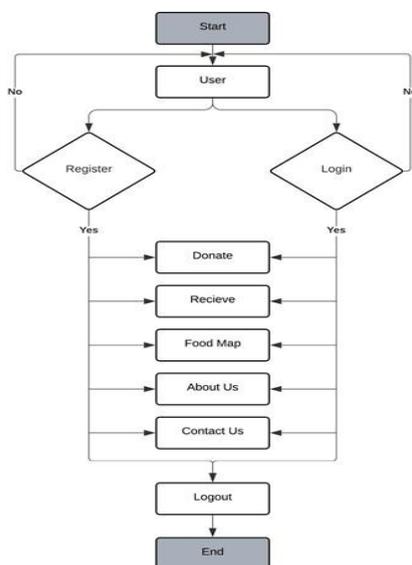


FIGURE 2

Figure 2 represents the flow chart of our application. If the user once login/register he can donate the food or else he/she can search and receive the food. Once the process gets over he/she can logout from the application. If he either register/login only, the application will be opened otherwise will not open.

6 RESEARCH METHODOLOGY / RESULT AND ANALYSIS

The motive of our project is to develop the application which must avoid the wastage of food worldwide and that that must be easier for all people to use and they can donate or receive the food. The food donations take place when there is the wastage of food in any functions, those foods can be donated to the homes, etc. The cost depends only on the receiver. If he needs money, he can make that food donation and can get the money and they can even give those food for free of cost for the homes. It is based on their mentality.

The food receiver can receive the food from the donors and they can receive the food by directly going to their place or else even at their place. They can make contact between them. In the about us you can see us in Facebook, Instagram and you can even contact us in the WhatsApp for any other further help and details about our application. This makes the relationship between the developers and the users. Our application provides this facility. The users can also contact us via Twitter. Figure 3 represents the splash screen of our food donation application. The application icon can be viewed in the splash screen.



FIGURE 3

The ultimate methodology of our mobile application is that, first the splash screen will be opened, then the sign up or the login page appears, you have to make sign up with your any of the Google or Facebook account if you are the new user to use our application, you need to register since it is the open source, it is free of cost to use our application. Figure 4 represents the home page of our food donation application.



FIGURE 4

Next, if you have already registered in our application, then you have to just login your Id with your password. Always try to keep your password strong. Figure 5 denotes the login page of our application.

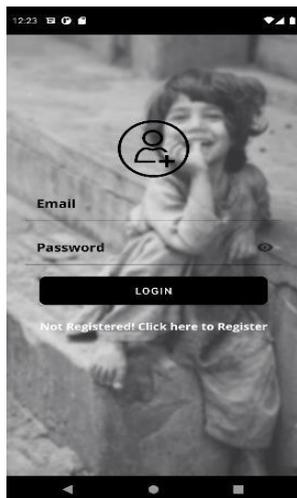


FIGURE 5

Figure 6 shows the register screen of our application. If you are a new user, it is strict to register before you work on the application. You can register through your google account or facebook account.



FIGURE 6

Once you register/login, our application will take you to the dashboard screen here only you can make sign up or login and about us also you can see using this application. If you are a new user, you need to register. It asks your name, e- mail id, password and your mobile number. Since mobile number is given, the customers or the receivers can easily contact the donors.

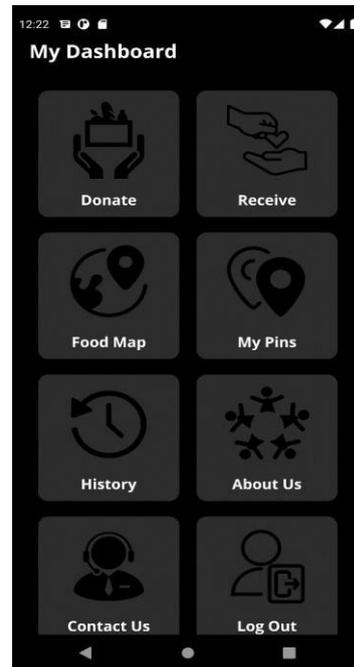


FIGURE 7

Figure 7 represents about the dashboard screen. If you have already registered then you can easily login to the page and click the password, this will directly take you to the Home page of the Aahar application. In the home screen or the dashboard screen you can view different icons, each icon will take you to the next different screens. The first icon

is the donor icon, if you are going to donate the food, you can click that and write the menus available. Your location also will be shared to all receivers since we have location access facility for the easy usage.

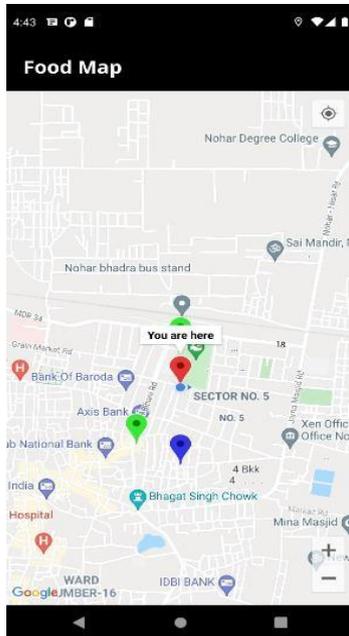


FIGURE 8

Figure 8 represents the food map or the map of our application. If you need the food and you can make track with the map where the food is available and you can order for you meals with our application, so that the food wastage can be avoided. The receiver can also take the live location of the donor and the food. The donor must give his name, menu cart, mobile number and any other descriptions and their map is available to track and the receiver must give his name and the description and his map is also available to track. This makes the method easier to donate or receive the food through our application.

The next icon is the food map, the map provides you the location of the availability of the food. The users or the receivers can do the live track of the food, where the food is available. This helps the users to make easier and the food will be delivered on time by the donors. The tracking of location do not make any problem to the users and we ensure your privacy, it will be tracked only when you are donating or receiving the food. Figure 9 represents donor screen.

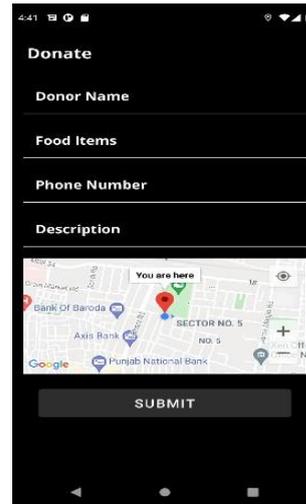


FIGURE 9

Figure 10 represents the receiver screen. The receiver can search and food and find the food.

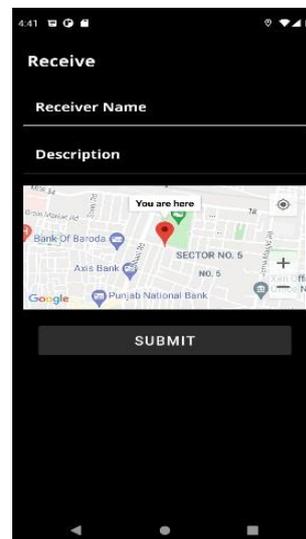


FIGURE 10

The fourth icon is the my pins, you can also make pin of you frequently available donors who donate at most of the time. This makes the time to be saved so that you can make the work done faster and the food will be delivered soon as soon as possible. Figure 11 represents the history screen.

The next icon is the history icon, the last transaction and the current transaction that is the donation and receiving of food all will be recorded with the history details most of the applications do not provide this facility but we have such a facility for our users to maintain their own record of food donations and received. These history will also not be erased after the certain period. It can be viewed at anytime.



FIGURE 11

The sixth icon is the about us icon, here you can see about us, about our developers and the other details of us which you want to know. This makes the users to better understand our application. Figure 12 represents the about us screen.



FIGURE 12

The seventh icon is the contact us icon, the users either donors or the receivers they can contact us using Facebook, WhatsApp, Instagram, Twitter, etc using the social media. This makes us to change and correct the problems whatever the particular user faces. This helps them to feel comfortable while using our application.

The last icon our dashboard screen is logout, once you have completed your process you can logout from your device. Then when you need again you can again login to your account. This ensures your complete privacy and security, so that our application can be used only by you.

7 CONCLUSION AND FUTURE SCOPE

In the existing system, this system's moto is to reduce the food wastage, foods are ultimately wasted in hotels, restaurants, etc. They donate their food items through mobile applications and webpages. Many applications provide only limited access, only fewer distance can be enabled. Few applications provide no location access. Can be accessed only in particular states and countries.

It is the mobile application; we have developed it for the avoidance of food. We have developed this mobile application successfully. Now it's ready for launching in the app stores. We need to have a proper license then only it will be released in the mobile and web stores. Now it's our work is to apply for the approval. Once the approval got over, the users can use our application in their mobile phones and place their order and enjoy.

8 ACKNOWLEDGEMENT

We would like to extend our heartfelt thanks to our project supervisor, colleagues, friends for their unwavering support and encouragement. Their valuable guidance and input were instrumental in the successful completion of this project, and we are grateful for their contributions.

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