

Prevention of Food Wastage Using Mobile Application

R.P.Harish¹, C.S.Ashwin kumar², G.Rajasekaran³

^{1,2,3}Department of Computer Science and Engineering

^{1,2,3}Jeppiaar SRR Engineering College, Chennai.

Abstract- According to different sources, 25 to 40% of food products are wasted in the world. There is something that we still don't see: food wasted by restaurants, shops or industries. There is also something we can see: food wasted by ourselves. This is the range focus of communities, through the management of wasted products of catering firms. Now a days People are aware of importance of food but there are no platform to share information about the excess of food available in the particular restaurants, shops and even in our homes for non-profitable organizations to offer food to the needy. We propose an android application in which the registered user can post the extra available food in their community for other users to come and get use of it by taking the extra food to the people in need.

Keywords- foodwastage ,platform, non- profitable organisation, android.

I. INTRODUCTION

Mobile apps have brought tremendous impact to businesses, social, and lifestyle in recent years. Various app markets offer a wide range of apps from entertainment, business, health care and social life. Android app markets, which share the largest user base, have gained a tremendous momentum since its first launch in 2008. According to the report by Android Google Play Store, the number of apps in the store has reached 2:2 million in June 2016, surpassing its major competitor Apple App Store. The rise of Android phones brought the proliferation of Android apps, resulting in an ever-growing application ecosystem.

Android applications are designed with the java coding. Android is an open source which provides the ease of developing the applications for the developers and thus it enables in establishing it in the android based mobiles. It is one of the user friendly operating system which supports the various kinds of applications developed on this platform to function in smart phones. The Advanced RISC Machine architecture supports the hardware platforms in Android.

II. EXISTING SYSTEM

The lack of awareness around the issue and interrelated issues, such as malnutrition, poverty and food

shortage, is minimal and hence a small contributor to the larger picture of food waste and the aforesaid issues. But, food waste alone incurs huge monetary losses to industries and mankind, in general. Food waste primarily revolves around any form of food, raw or cooked, used or unused – discarded or intended so.

Professional bodies and governments alike, further diversify the definitions to various categories and implications such as the kind of food waste, the form it is produced / generated by and materials and source of waste. The non-profit organizations and other welfare organizations wait till someone come and offers the extra food.

III. PROPOSED SYSTEM

We propose an android application in which the registered user can post the extra available food in their community for other users to come and get use of it by taking the extra food to the people in need. First, the new user needs to sign up and then only, the user can view the updates from other user about the available food in the specific restaurant or shop. The application is user friendly because of its attractive feature of showing the posts based on the user location and also the food donor can indicate other users about the food availability status.

A. Setbacks with the existing system

No knowledge about foods being wasted and Difficult to access available food. No idea in what to do with the extra food.

Here the users can post the extra available food in their community for other users to come and collect the available food and deliver to the people in need.

B. Architecture Diagram

The system constitutes architecture of an application in which the user has to initially register once the registration is done the user can enter into the application both as a collector or donor but one at a time. In case of a donor, they can post the extra available food with the location (GPS) then the information reaches the Apache Tomcat server and back to

the GCM server .the GCM server sends the notification to the collector and the collector can check the update and notify the donor about the food.

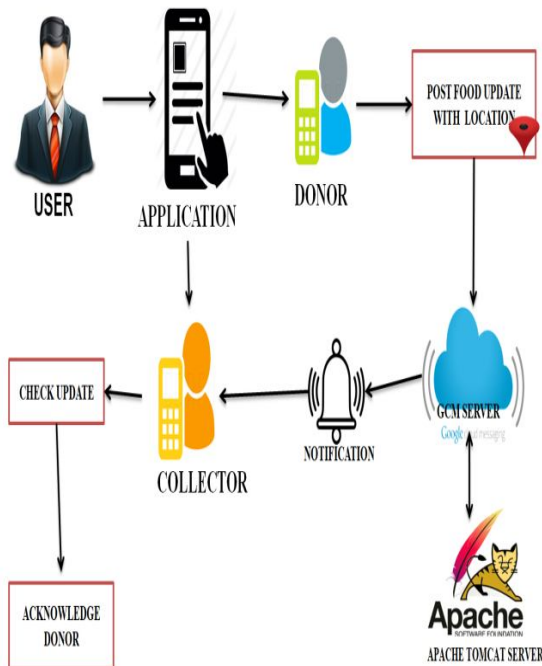


Figure 1. Architecture diagram for prevention of food waste using mobile application.

IV. MODULES DESCRIPTION

- 1) Initial setup
- 2) Donor food update
- 3) Location based collector feed
- 4) Donor indicate food availability

1. Initial setup

In the registration phase the user needs to feed their information. This information is used in login phase to verify the concerned user. Then the user information is passed to the GCM server then to the Tomcat server, and once the application is started the information about the user is queried and inserted in the Mysql database server in the user application installed device.

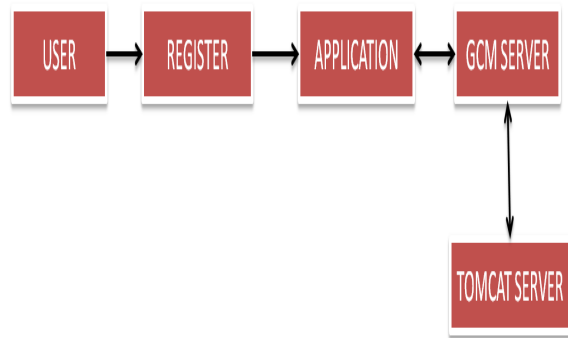


Figure 2.

2. Donor food update

This module comprises of sharing the location of the user along with the details of the available extra food with the user. This data is again updated to the GCM server and then these details updated to the local Mysql server database.

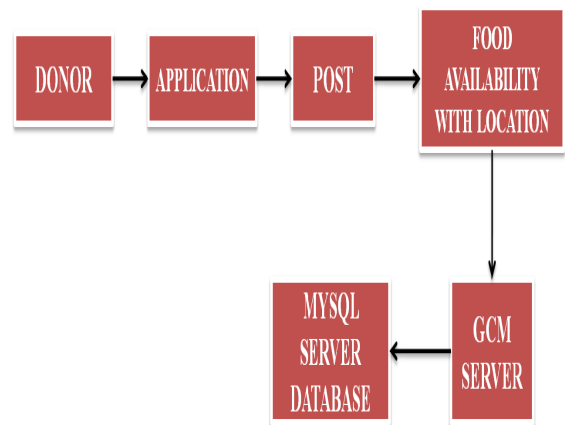


Figure 3.

3. Location based collector feed

The feeds available from the past 12hours are retrieved back to the user application window by querying the updated feeds in the local Mysql server database. The data inserted in the Tomcat server are updated to the local Mysql server database before updating the feed of the food availability to the user. The available food feed is based on the location of the user, i.e., the available food posts near the user location.

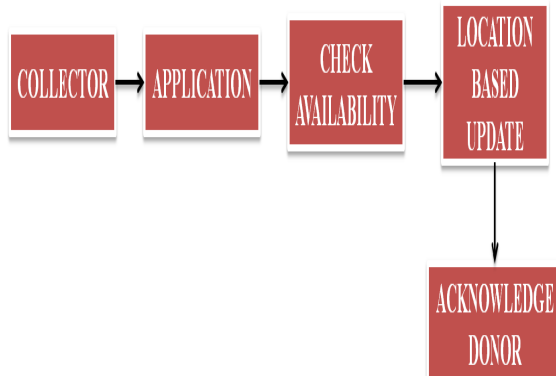


Figure 3.

4. Donor indicate food availability

After the collector contact with the donor, the food availability is updated by the donor for other users to know about the availability of the food with the donor.

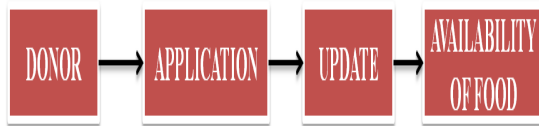


Figure 4.

V. ADVANTAGES

Non profitable organization which can easily access extra available food in the community so the wastage of food is reduced. And thereby, the needy people can be able to get their daily needs of life. It also gives a greater availability to access foods. This system inturns provides effective and efficient interaction between both the ends.

VI. APPLICATIONS

Android application can make the non-profitable organization to easily access the available food for the people in need and also this application is the need of the hour for preventing the food wastage in their locality (i.e., The user's own locality) and also it is user friendly because of its attractive features of location based and last 12 hour based feed updates for the collector.

VII. CONCLUSION

The proposed android application can make the non-profitable organization and common people to easily access the available food for the people in need with the attractive

features of the location based feed. So people in the nearby, location can be able to know the availability of food in the neighborhood areas, thereby reducing the transportation cost and also provides other economical benefits for the people who are in need.

VIII. FUTURE ENHANCEMENTS

This system is done using Google cloud messaging (GCM) and in the future it can be updated to Firebase to make it more efficient. And this can be enhanced with more interactive features so that even unsophisticated people should be able to access all the resources and features of the applications and get benefited in all means.

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