

Zero Hunger

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Abstract— The issue of food, clothes and books wastage is a topic of major concern. In a country where many people die due to lack of food and not even getting food to eat single time a day, around such situations we also see a situation where tons of food gets wasted every day. Not only food, there are many people who are not having some basic needs like clothes. There are people who wish to donate food, clothes and books for the needy but couldn't due to lack of information. To control the wastage of resources the Zero Hunger is to be used.

For Zero Hunger, we collect food from various areas such as restaurants, functions, donors and distribute to the orphans, and to the people who suffer from hunger. It creates a bridge between the donor and the receiver. The one who is having the resources in excess amount will act as donor and the other who has lack of resources acts as receiver.

Index Terms: Donor, Receiver

1. INTRODUCTION

In the present society the problem which we are facing is the food scarcity. In some of the developing countries like India a lot amount of food is being wasted at many places. Some of the places at which the food is being wasted in a large amount are restaurants, grocery stores, function halls, pubs etc. But this is only one side of a coin on other side a large amount of people are suffering from food drought.

In India, according to the agriculture ministry, INR 50,000 crores worth of food produced is wasted every year in the country. But on other side nearly 195.9 million people go hungry everyday. Nearly a percentage of 14.9 of our population is undernourished. 21.0% of children under 5 years of age are stunted, 1 in 4 children are undernourished. There are currently 795 million people hungry on earth.

The food is being wasted in huge amount in the following listed areas:



India itself is home to the largest under-nourished and hungry population, with 195 million people going hungry every day. Around half of all pregnant women in developing countries are anemic, because they lack access to iron-rich foods. Anemia is responsible for causing 110 deaths during childbirth every year. Not only this but also

- 24% of under-five deaths in India
- 30% of neo-natal deaths in India
- 3,000 children in India die every day from poor diet

2. EXISTING SYSTEM

IoT-Based Food Waste Management

This smart system consists of combination of different sensors and modules. The user has to put wasted food item on the acrylic disc of the weight sensor. The weight sensor measures the weight of the wasted food, and the eNose system detects the gas emission from food items. The sensed values are then sent to the control unit by digitizing the analog sensed values using Arduino. Arduino IDE is use to

interpret the sensed information. The control unit analyzes the sensor information through through the machine algorithm and comes up to a result which food item is being wasted and the weight of the wasted food item. The record is then saved into the database for further precautionary measures to reduce the food wastage. In this the information gain and gain ratio is used.

Redistribution of unsold/ excuse food

As part of NEA's ongoing 3R outreach effort, NEA encourages both organizations and members of the public to donate their unsold and excess food to food distribution organisations.

The food manufacturers and food retail establishments can contact the food distribution organisations to make arrangements for the donation of their unsold and excess food. For instance, unsold and/or excess food produce can be delivered to Food Bank Singapore or Food from the Heart where they are packed and distributed to needy households.

Members of the public can also reduce food waste by donating safe and edible food items which they no longer wish to consume. For example, they could drop off their excess non-perishable food items at various collection points. Shopping malls and offices may also wish to adopt a bank box to be placed at their premises to offer a convenient point for people to drop off their unwanted yet unopened and unexpired food items.

3.DISADVANTAGES OF EXISTING SYSTEM

- With this existing solution, we can share the food only within our locality.
- Many of the donors are using the google maps to search for the near by orphanages and childage homes, but many of them couldn't be found in these maps.

4.PROPOSED SYSTEM

The food is being wasted at various places can be utilized through the proposed solution i.e Zero Hunger to the needy. For Zero Hunger, we collect food from various areas such as restaurants, functions, donors and distribute to the orphans, and to the people who suffer from hunger. The proposed software contains mainly two interfaces. One is the

donor interface and the other is receiver interface. It creates a bridge between the donor and the receiver. The one who is having the the resources in excess amount will act as donor and the other who has lack of resources acts as reveiver. Through this we provide the basic needs of human life not only food, but also includes books and clothes. If a person has an excess amount of resource, he/she will post that information in our software, with an essential parameters like the amount of resource, his/her location and contact details. A person who needs the resource which is posted in the software will contact that particular donor and he/she will get that resource from them. All the donations and requests data will be maintained in the database along with the data of the users. If the number of users of the app is in a large number, then the response will be get in a short time. So that we can save maximum amount of food.

5.ADVANTAGES

- Quick response- With our proposed solution the food, books and clothes can be quickly reached to the needy before they are going to be wasted.
- Coverage of large area: The Zero Hunger can covers a large amount people i.e. donors and receivers from various places.
- Flexibility: The software that is finally obtained can be flexible in nature. It is very user friendly that a person having a minimum fundamentals on a computer can able to use this software.

6.MODULES

Registration:

For every user who want to use the software application Zero Hunger need to create their own account in our software by using the registration option which is provided. The implementation of this registration module is done by using the python tkinter module which is available in a GUI window. Here all the required details of the user will be collected and stored in the database.

Login:

Once the user done up with the registration the user need to login to the Zero Hunger with his own user id and the password. If the user forgot their password and having trouble in the login process, there is

another option i.e. forgotten password in which a user can retrieve or can change their passwords.

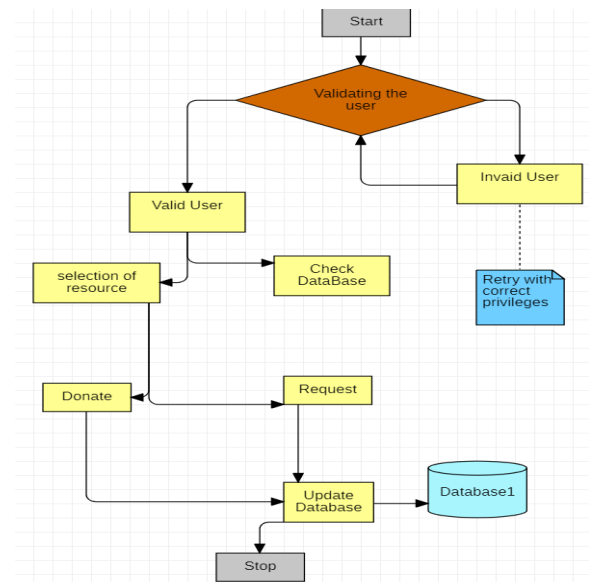
Handle of resources:

After user is registered to their own account they can able to receive or donate any of the resource food, book or cloth by posting the update in that application

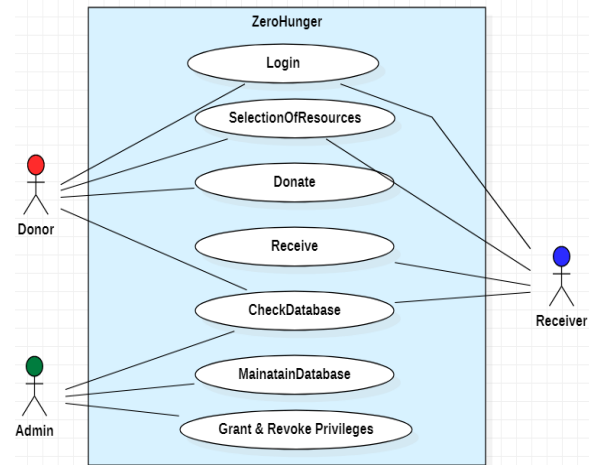
Database management:

The donation and requests data regarding the food, books and clothes will be securely maintained in the database and can be provided for the authenticated user.

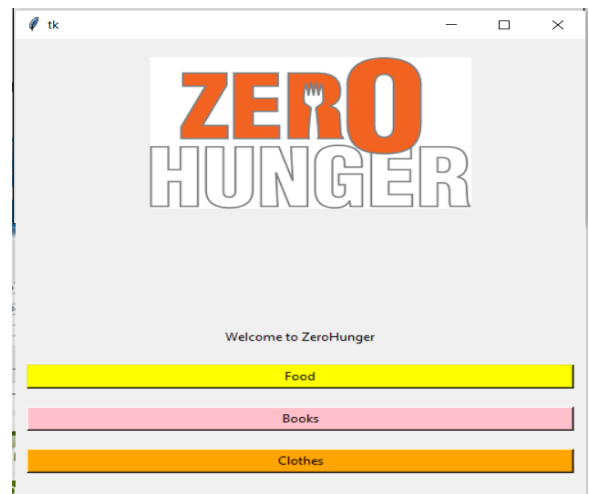
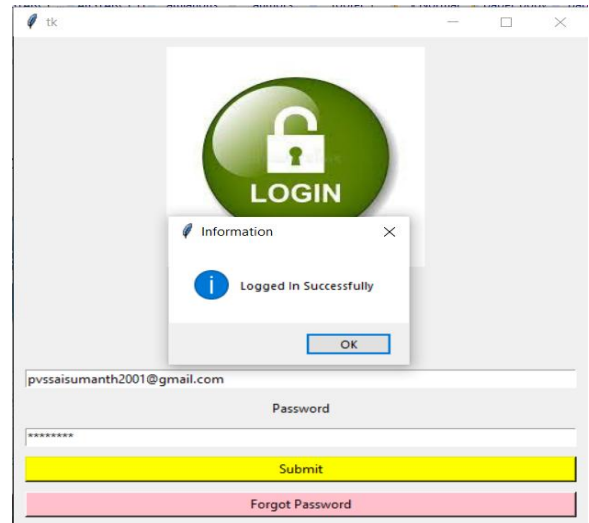
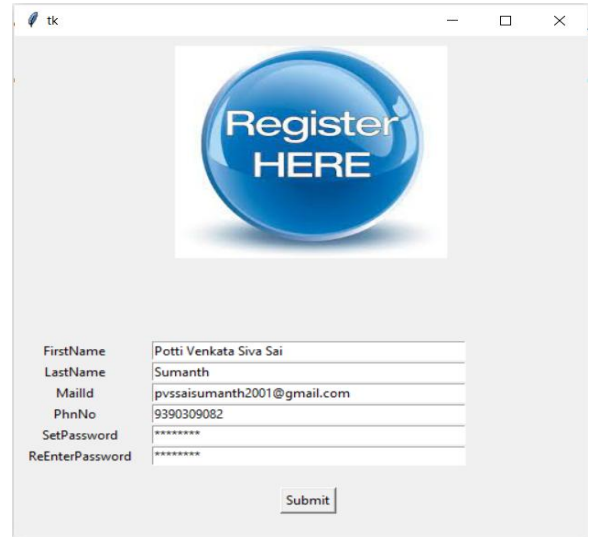
7.ARCHITECTURE

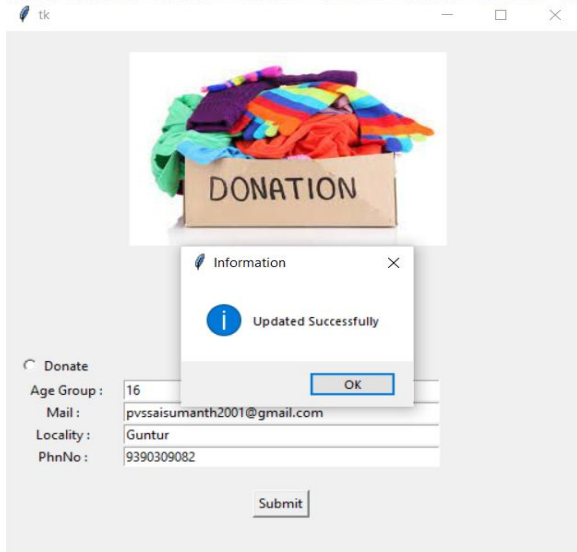
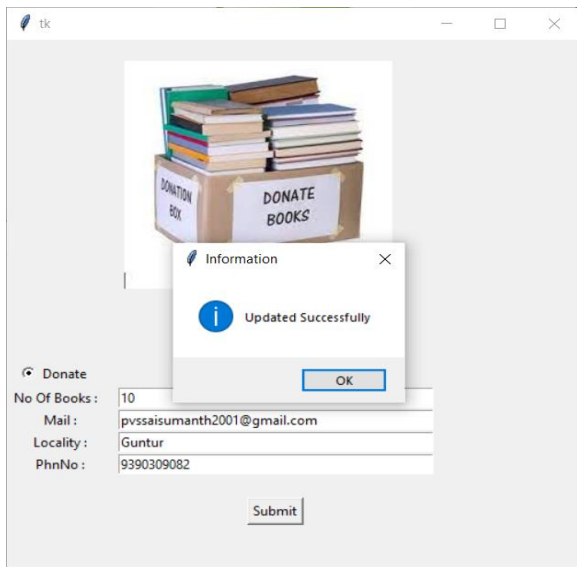
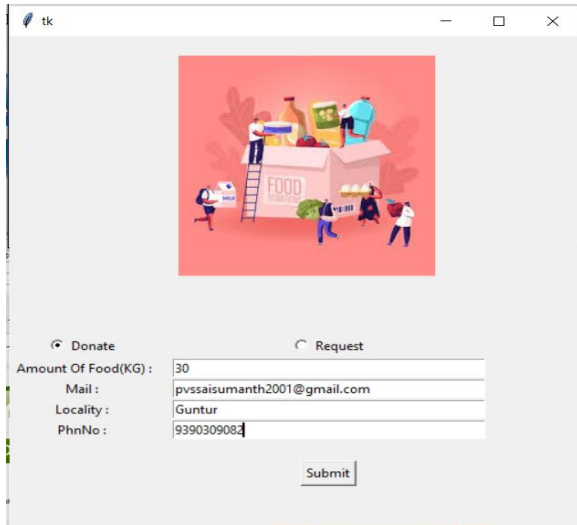


8.BLOCK DIAGRAM



9.OUTPUT SCREENS





10.CONCLUSION

The final outcome of this project is decrease in hunger rate in India. The project Zero Hunger creates a bridge between the people mainly categorized into two usecases the donor and the receiver. Donor is the one who is having excess amount of resource and receiver is the one who is having lacking of resource or requesting for the resource. The project Zero Hunger maintains a good relation with the donors such as event organizers, function halls, restaurants etc. from where the food is being wasted. And also with the receivers such as childage homes, oldage homes, orphanages etc. With this project we can reduce the wastage of resources like food, books and clothes which are in quantity. All these excess resources will be then distributed among the people who are in need. Some waste food to show that they are rich. Few donate food because they have a rich heart. Being a citizen of India it is our responsibility to serve the needy.

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