Food Value

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Abstract

This is the project where the customer can order food and beverages left at the end of the day from the restaurants or groceries nearing expiry from stores at a discounted price. In current era food wastage is being a real issue, on daily basis food is wasted in different places like restaurants, weddings, schools/college canteens, social events and other events. This Website provides a portal for Restaurants/Users to donate the leftover food to organization/ NGOs so that they can avoid food wastage. User will be able to buy food products which are close to their expiry date at discounted prices, as shops attempt to get as much of these products out of their inventory. This will result in reduction of food waste and shops &restaurants will be able to reduce their losses.

Keywords: Website, food waste problem, donators, Ngo.

1. Introduction

Websites has been very popular and used for a various purpose in human life including in health, safety and security, education, food, travel and others. Currently, trend of using the websites is increasing. Globally, there are many types of websites have been developed for charity purposes including charity website for Non-Governmental Organization (NGO) that focused on various aspect in life such as a charity for the animal, environmental, disaster relief, food surplus and poverty purposes.

The current issue in the website for food surplus and food waste is the lack of connection between the needy, the donators and the food suppliers. The connection between them is important as it will sustain the users to use the website for a long time to decrease the number of food waste . Although there exist a few numbers of website but all of them only focused on poverty and hunger issues. The website has been designed without the food supplier's information and therefore could not resolve the food waste problem. While there are many organizations and public sectors as well as NGO started campaigns to reduce food waste, the problem still appears and have'nt been resolved. Food is a basic living needs because it is necessary for living, without food people can die due to hunger and lack of vitamin and nutrition. This issue becoming more crucial when it involves children because kids do not have an income. Furthermore, it is proven from past research that a poverty will lead to crime. Responding to that problems, a website "FoodValue" is developed from where we can order food and stores & restaurants can donate food by the help of NGOs

FoodValue " is the project where the User can order food and beverages left at the end of the day from the restaurants or groceries nearing expiry from stores at a discounted price. And the order can be Picked by the User from the Restaurants & stores.

This system will give information about unsold food that will otherwise go to waste from Restaurants & stores to NGOs. If someone (Individuals ,Weddings, Corporate offices ,etc) wants to donate excess food they can login as a User and share food info.

2. Research Background

In highly populated countries like India, food wastage is a disturbing issue. The streets, garbage bins and landfills have ample proof to prove it. The major Cause of Food wastage is, excess food produce by restaurants, home kitchens catering business. Many restaurants tend to throw the leftover food at the end of the day even though the food is perfectly fine to be eaten, which means that huge amounts of food is wasted.

2.1 Food waste

Food waste is an extensive segment of the world's food system challenges.

Food waste is perceived to be an enormous issue around the world, and severe condition in developed countries. It is one of a global issue that faced by every country worldwide. It may seem like not important cases for people to concern but when it related to the poverty and hunger to those who need a food, it is a big issue that needs to be considered. For cases, in the United States, food waste and losses at the consumer levels and retail have added up to 188 kg per capita every year, or a general estimation of $165.6 billion. Among Europe and the North America, the food waste was assessed as high as 280 – 300 kg for per capita every year .

2.2 FoodValue

A very limited website has been reported in a form of journal or proceeding with regards to websites for food donation activities. Nevertheless, some websites are available to be used online or in mobile platforms such as Share The Meal at https://angel.co/sharethemeal- 1/jobs, Lunch Box at https://www.universitylunchbox.com/ and Charity Box at http://www.getcharitybox.com/. Table 1 lists the features comparison of the website.

Table 1: Function comparision of FoodValue website

Function	Share The Meal	Lunch Box	Charity Box	FoodValue
Free food donation	. /	/	X	/
Chatting among users	X	X	X	X
Location aware	X	X	X	/
Food donation	/	X	/	/
Food supplier	X	X	/	/
Food Order	X	X	X	/

Share The Meal, Lunch Box supports services for food charity while Charity Box focuses on money charity. Only the Share The Meal that support both food and Money donation. Only the Olio that provides location maps for the users. In the Foodvalue website, the inclusion of all functions listed in the Table 1 has been the concern of development.

3. <u>System Design and Architecture</u>

3.1 Functional Requirement

In general, the fundamental function that should be provided by the website are:
- Allow users to register
- Allow users to login into the system
- Allow users to view their profile and make changes for their account profile
User can also donate food from this website.
- Allow store to register
- Allow store to donate surplus food
- Allow NGOs to register or login to receive donation.

3.2 Users of the website

"Foodvalue" website has three type of users, which can order food , donator and food supplier(stores). The donator could be anyone that generous to do the charity whether to donate their food. The suppliers are all the peoples or organizations that want to sell food for the donators. Ngos can choose and can make requests for food given by donators nearby their location. The donator users are facilitated with functions to donate food.

to those needy. Furthermore, users from Store category are provided with functions of sell food and managing foods. All users can donate . There NGO login is also available by which NGOs can receive food donation., so that user or stores can donate food to the organization by using this website.

The Use case diagram depicted in Figure 1 shows the object inter-actions . It depicts the use-case and actors involved in the diagram and the relation of process exchanged between the objects needed to carry out the functionality of the System for this website. In this use case diagram, it shows the process of user ,admin ,NGOs and stores in food ordering,donation etc.

An activity diagram is a graphical representation of an executed set of procedural system activities in the website. Activity diagrams describe parallel and conditional of various activities, use cases and system functions at a detailed level. Figure 2 presents the activity diagram.
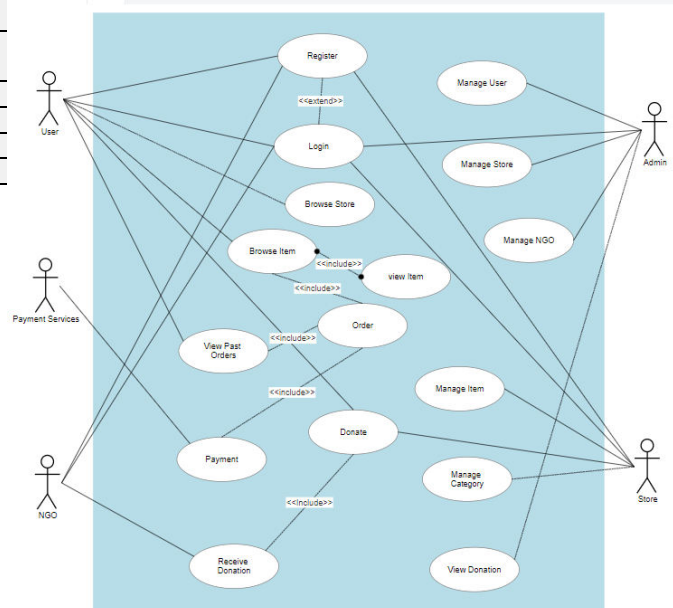
Fig. 1: <u>Use case</u> Diagram
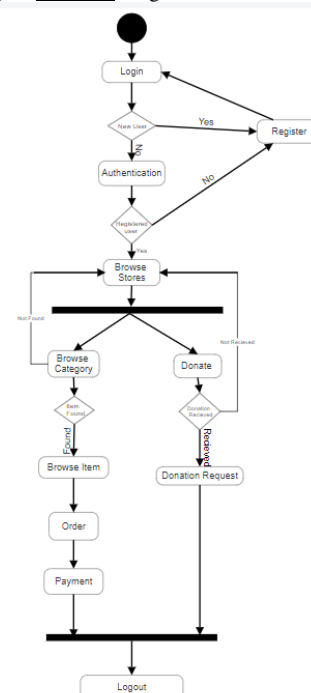
Fig. 2: Activity Diagram

3.3 System architecture

FoodValue is a website developed using the PHP ,HTML ,JAVASCRIPT ,CSS ,JQUERRY ,BOOTSTRAP and MYSQL for storing data Figure 3.
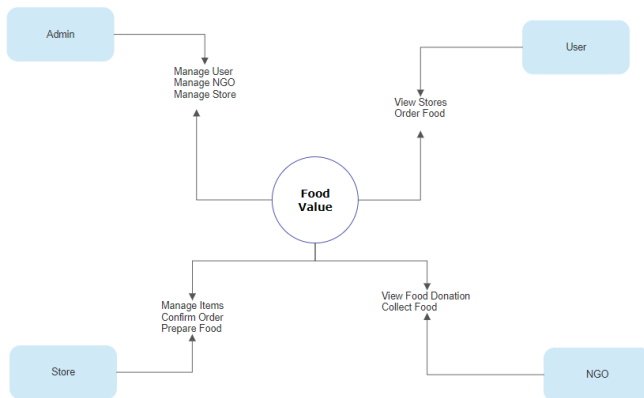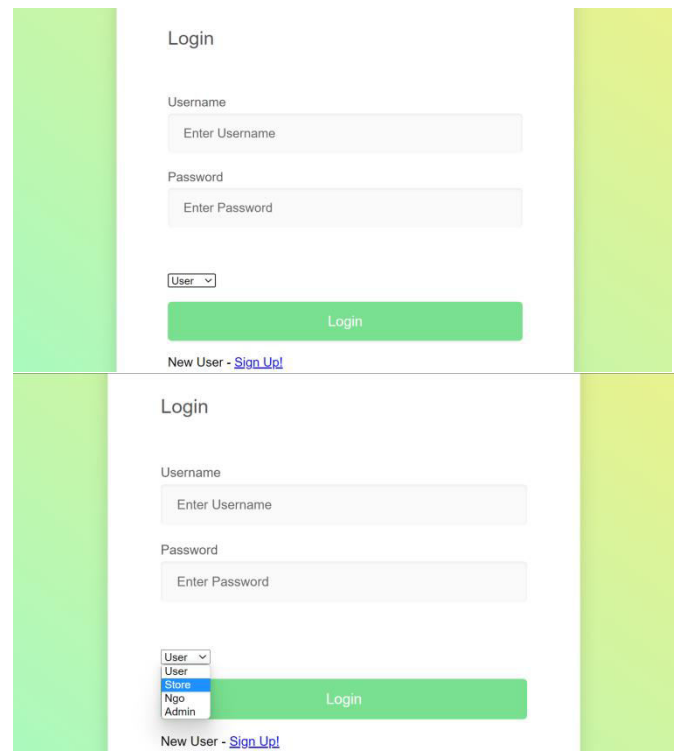
Fig. 3: System Architecture

The database store the user's data and profiles and all the activities run by the user when using the website. At the backend of the website, there is a phpmyadmin with xampp server that function as a service platform to update data at the database and synchronize it to clients. All the real-time activities done by the users such as request donate or ordering food, the admin is responsible to trigger the notification to the Database Management .

The user has to provide their information which is stored in our database and we provide an unique ID to the user,

At the front -end user view all the stores,Category,food items and donation Page from which user can also donate food with the help of NGOs.

3.4 The interfaces

The following figure 4 to present some of the FoodValue interfaces. Figure 4 allows users to choose their category then the user login page will be appeared on screen. Figure 5 is the sign-up and user profile entry pages if the users do not have any account yet in the system. Figure 6 is the main pages for all users either to search for Stores for ordering food , Donate Food by donator .
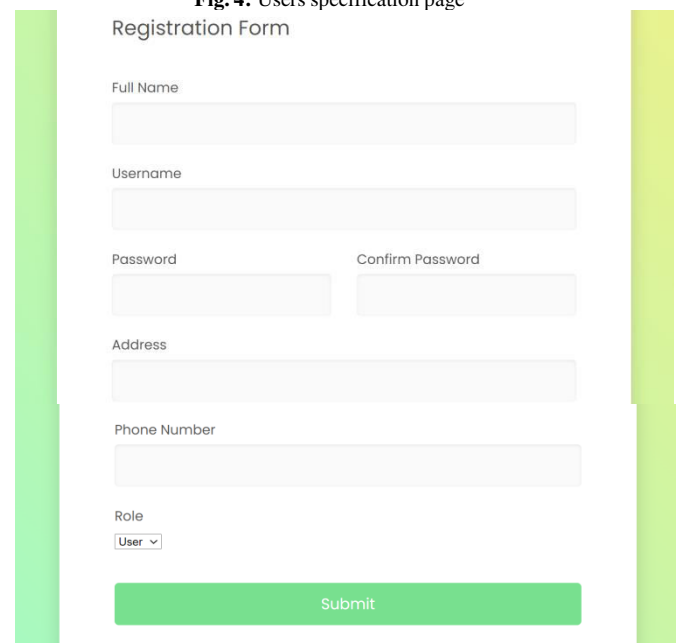
4. Solution proposed:-

In proposed system we are reducing food wastage using this website. This project allows restaurants /stores to sell their food and food products and give information about unsold food to NGOs that tackles food waste. The proposed Website requires internet connection and will provide a platform for donors and NGOs after they successfully register into the system. If a user wishes to donate something, he/she can send a message .This message will be shown as notification in donations tab to Admin & NGOs. This message will be stored in backend in the database. Once a notification is sent, the orphanages can claim the donations .The user interface of this system will be simple and user-friendly. At present, we are aiming to avoid the major wastage that usually happens in India and that is foodstuffs.
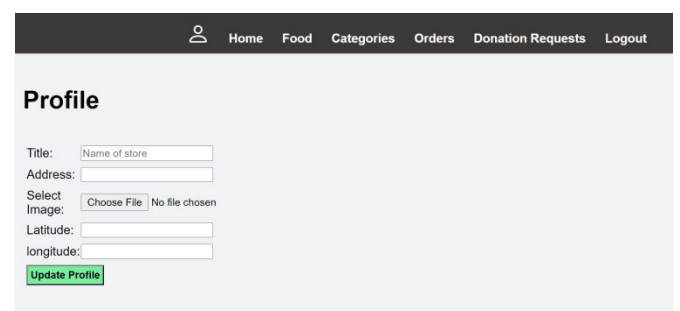
Fig. 4: Users specification page

Fig. 5: Users registration pages

Update Profile

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5. Conclusion

Food value is done to help and solve one of the important problems of needy people . There is a lot of food wastage that occurs daily at restaurants and cafes. Instead of throwing away the same as trash (which usually is the scenario), it can be used to feed the homeless.This website will give information about unsold food that will otherwise go to waste from Restaurants & stores to NGOs. If someone (Individuals , Weddings , Corporate offices ,etc) wants to donate excess food they can login as a User and share food info. Also, since the pickup is arranged for by the enterprise, the restaurants/cafes need not worry about it. Benefiters will be both the restaurants/cafés (reducing the carbon footprint and wastage), and the NGO donate the food to the needy people.

Acknowledgment

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