IJIRCCE

e-ISSN: 2320-9801 | p-ISSN: 2320-9798

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

Volume 11, Issue 4, April 2023

INTERNATIONAL STANDARD SERIAL NUMBER INDIA

Impact Factor: 8.379

International Journal of Innovative Research in Computer and Communication Engineering

| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | |Impact Factor: 8.379 |

|| Volume 11, Issue 4, April 2023 ||

| DOI: 10.15680/IJIRCCE.2023.1104063 |

Food Waste Management System Using PHP and MySQL

Ms.Mohsina A. Shaikh,[1] Mr.Shrikrishna R. Gawas[2], Mr.Shrikrishna. D . Rawool[3], Ms.Kshitija A. Prabhukhanolkr[4,] Asst. Prof. T. C. Mhapankar[5]

Students, Department of Computer Engineering, Yashwantrao Bhonsale Polytechnic, Sawantwadi, India[1234]

Asst. Professor, Department of Computer Engineering, Yashwantrao Bhonsale Polytechnic, Sawantwadi, India[5]

ABSTRACT- A drastic increase can be seen in food waste. As per data given by Food and Agriculture Organization, 1/3rd of food produced for human consumption is wasted globally, which accounts for almost 1.3 billion tons per year. On the other hand, also as per WHO 20% of the population faces extreme food shortages. Hence there is a need to come up with a solution that can avoid food waste & can help feed the needy. This android-based Food Waste Management system can assist in collecting the leftover food from hotels & restaurants to distribute among those in need. NGOs that are helping poor communities to battle against starvation & malnutrition can raise a request for food supply from restaurants through this application. Once the request is accepted, the NGOs can collect the food from the restaurants for its distribution. In this way this android-based food waste management system will help restaurants to reduce food waste and will help in feeding the poor and needy people. Food waste is something that affects us all. It affects people everywhere like in our homes, at schools, at restaurants, the grocery store, in production and even in transportation. This application use of mobile technology to reduce waste food and allow hotels to donate leftover food to needy people.As per the present reports, it is estimated that 1.3 billion tonnes of food per year are wasted or discarded, causing 750 million Dollars' worth of economic and environmental loss. This wastage has also been linked to the increasing food shortages in developing or underdeveloped countries. When thrown away in the landfills, this waste food causes the release of many toxic gasses that are classified as greenhouse gases, leading to global warming and Air Pollution.Nowadays, when every type of waste is encouraged to be recycled and have a proper management system in place, including plastic waste and e-Waste, Food waste management is ignored due to the misconception surrounding the biodegradable properties of food and the fact that it decomposes itself in spite of the fact that, that process takes a lot of time and causes pollution. Therefore, it is very important to set up a proper Food Waste management system in place.

I. INTRODUCTION

According to , food waste is a important issue around the world. It is predicted through a survey that more than 58 percent of food that people generated for consumption is wasted every day. Thus, more than 60 percent of people in the third world countries are dying in malnutrition without proper food for a living. Therefore, the technologically developed countries are articulate more on this issue. Therefore, that limited food can be wasted and can be distributed to the needy people. According to in the age of modern era, where we are developed through artificial intelligence, people are more depending on the smartphone. There are different applications, which are developed to control the more wastage of food, and it give the opportunity to send that extra food to the people who need it. There are many applications, which control food waste.A new online-based application that provide a platform for donating leftover food to all or any needy people/organizations . It give details about the motivation to return up with such an application, thereby describing the prevailing donation system and the way the proposed product works for the improvement of society. The recent depression has grow the amount of individuals living in conditions of food poverty, especially in developed regions. At the client side App give facility to donate food to the charity for the assistance of hungry people. The system consists of three primary donor, NGOs and admin modules. The donor completes tasks like registration/login and adds items to the donation request to be contributed and viewed. The recipient does tasks such as requesting items, displaying requested items and declare donations. The manager will track the collection and improve it. The administrator and the donor also look the position of the recipient. The donor-donated items will be displayed to other users as a reminder in the donation tab and the message will be saved in the backend folder [5]. In the base paper,

| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | |Impact Factor: 8.379 |

|| Volume 11, Issue 4, April 2023 ||

| DOI: 10.15680/IJIRCCE.2023.1104063 |

an automation is built with four modules which focus on accounting the quantity of food being wasted, it is focused on creating an awareness by feeding the live data on how much food is being wasted, it uses a database to store the quantity of food being wasted each day and later the presented data is represented in graphs in order to encourage the students to reduce the wastage of food. The automation elements are connected to the central data store,

II. PROBLEM IDENTIFICATION

In this system, we have tried to reduce restaurant food wastage by giving waste food to NGOs. NGOs will raise a request, in case of any leftover food restaurants have. This request is sent to the restaurant manager of that particular restaurant. The NGO Manager then approves the request and assigns it to one of the NGO employees for takeaway and forwards the request to the restaurant. The leftover food at the restaurant can be given to NGOs at the end of the day. The admin can track the history of restaurants and NGOs for the leftover foods. This system can be used by restaurants, and NGOs to donate leftover foods to the needy.
In this website we have tried to reduce restaurant food wastage by giving waste food to NGOs. NGOs will add to a request, in case of any leftover food hotels have. This request is sent to the restaurant manager of that specific restaurant. The NGO Manager then accept the request and assigns it to one of the NGO employees for takeaway and forwards the request to the restaurant. The remaining food at the hotel can be given to NGOs at the end of the day. The admin can detect the history of restaurants and NGOs for the leftover foods. orphanages, old age house owner can give a rating of food item which will help other persons to select the food item. Sentiment analysis using scrkit_learn library,

III. SCOPE OF THE PROJECT

- Quick Delivery
  As per the associated delivery partner arrangements, it should be ensured that the delivery of the food is quicker. It has already been a while since the food has been prepared, and making delays in delivery might leave no scope for food consumption.

- Connecting The Relevant Stakeholders
  Hotels, restaurants, and eateries are the hub of food wastage as well as excess food generation. On the other hand, NGOs are the ones who need food to distribute among the needy and hungry folks. So, the app should have a feature where restaurants can share their leftover food, and NGOs or other social service agencies can collect that food.

- Barcode Scanner
  Every food waste management website must have a barcode scanner installed to check the food's life. The website can share information such as the list of ingredients, nutrients, packaging date, expiry date, relevant recipes, etc.

- Notifications and Alerts
  Every website must give notifications and alerts to its users as per the assigned principles. Let it be notifications about new listings of food, requests from the NGO or neighbor, expiration of the food, need for the shopping, new recipe, or anything else; notifications keep the users up to date.

IV.ADVANTAGES OF CAR ACCESSORIES MANAGEMENT SYSTEM

1. For Businesses

- Inventory management will be much more efficient.
- The firm will purchase the sufficient inventory only, which will reduce the cost.
- The expiry tracker informs the kitchen manager about the supplies to be used at the earliest.
- Businesses can sell their extra food at discounted prices, covering the cost of food.

| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | |Impact Factor: 8.379 |

|| Volume 11, Issue 4, April 2023 ||

| DOI: 10.15680/IJIRCCE.2023.1104063 |

- Restaurants and hotels can take part in volunteer ship with food waste apps without making any additional or significant efforts.
- The firm doesn't have to think about landfilling or other management methods of the wasted food.
- The recipes from the apps can be added to the menu.

2. for Users

- People can share their food with their neighbours.
- Users are more aware of the food they have, food that can be stored for a more extended period, and the food they need to consume at the earliest.
- Users can donate their food to the needy ones.
- Apps help in shaping the spending and purchasing habits of users.
- Apps make users more aware of their responsibilities toward society.
- Users know about the discounted deals and offer on edible items from different restaurants and stores.

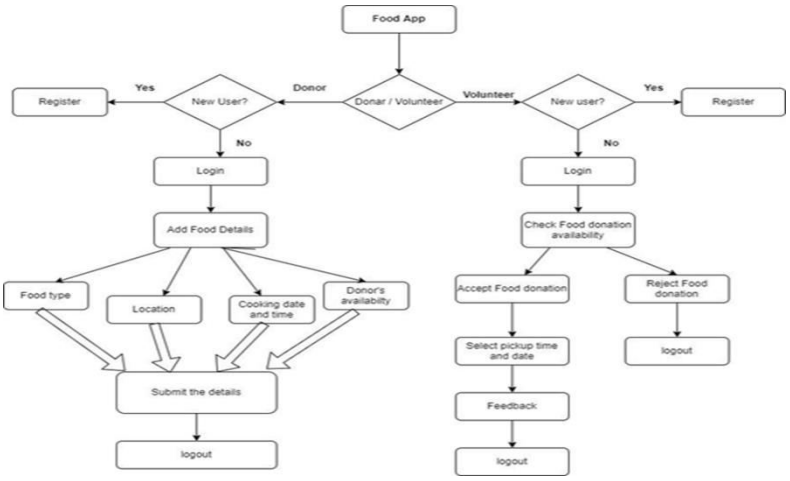
3. For The Environment

- The smart and shorter routes to the market will help reduce carbon emissions with lesser transport activities.
- The lower landfill will lead to lower methane generation and, thus fewer greenhouse effects.
- Sustainable harvesting and farming will ensure the sustainable use of water and will help eliminate pure water pollution.
- Food waste spoiling in the corner of any square produces poisonous gasses and thus causes air pollution. The use of food waste management apps will address this issue as well.

V. RESEARCH STATUS OF ACCESSORIES MANAGEMENT

Food waste (FW) related issues in developing countries is currently considered to be a major threatening factor for sustainable development and FW management systems. Due to incomplete FW management systems, many developing countries are facing challenges, such as environmental and sanitary problems that are caused by FW. The difference in FW generation trends between developing countries and developed countries was reviewed in this work, which demonstrated that the effects of income level, population growth, and public participation in FW management are very important. Thus, this work aimed to provide an overview of recycling activities, related regulations, and current FW treatment technology in developing countries by following some case studies. Taiwan, has been suggested as being a successful case in terms of FW management, and is therefore a typical model for developing countries to follow. Finally, an integrative management system as a suitable model for FW management has been suggested for developing countries.

VI. DATA FLOW DAIGRAM



| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | |Impact Factor: 8.379 |

|| Volume 11, Issue 4, April 2023 ||

| DOI: 10.15680/IJIRCCE.2023.1104063 |

VI. FRAMEWORK OF SYSTEM

- **Admin**

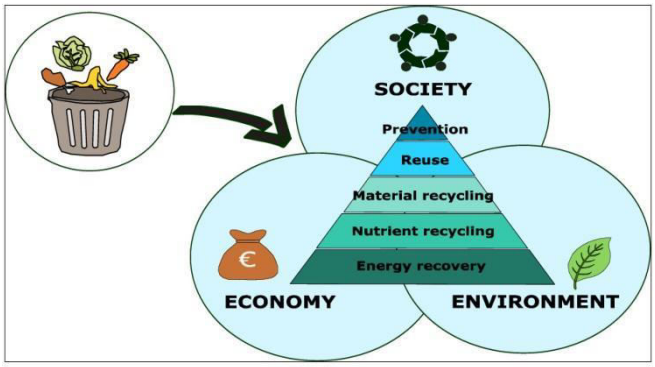
- **Dashboard**: In this section, admin can view total state, total city, Total Food Donor, Total Listed Food, All Food Request, New Food requests, Rejected Food requests, and Completed Food requests.
- **State**: In this section, admin can manage the state (Add/Update/Del).
- **City**: In this section, admin can manage the city (Add/Update/Del).
- **Reg Food Donor:**In this section, admin can view registered food donors.
- **Listed Food:** In this section, admin can view the listed food by the food donor.
- **Food Request:**In this section, admin can view the request for food that is sent the user.
- **Inquiry:** In this section, admin can view and maintain the inquiry.
- **Pages:** In this section, admin can manage about us and contact us pages.
- **Search Listed Food:** In this section admin, search food request by request number.
- **Reports:** In this section admin can view donated food and registered food donors in a particular period
  Admin can also update his profile, change the password and recover the password.

- **Donor**

- **Dashboard**: In this section, donor can view total listed food and the total food takeaway.
- **List Your Food Detail:** In this section, donor can list the donated food detail.
- **Request:** In this section, donor can view the request which is sent by the user.
- **Search:** In this section, donor can search food requests by request number.
  Donors can also update their profile, change their password and recover their password.

- **Visited Users**

- **Home:** User can visit the website and check the details.
- **About Us**: User can see the details of the website.
- **Contact Us**: User can see the contact detail and contact the website administrator.
- **Food Available List**: User can view available donated food and send the request for food.
- **Request Food**: The user can also request available food.



VII. GUI OF SYSTEM

Food Waste Management System is a window based application designed to run on desktop. The application is designed in such a way even non-technical skills people also can use it by simplifying the function in the application. The admin login will differentiate the functions enable in using the application. Once login success, the users are will be directed to content menu interface

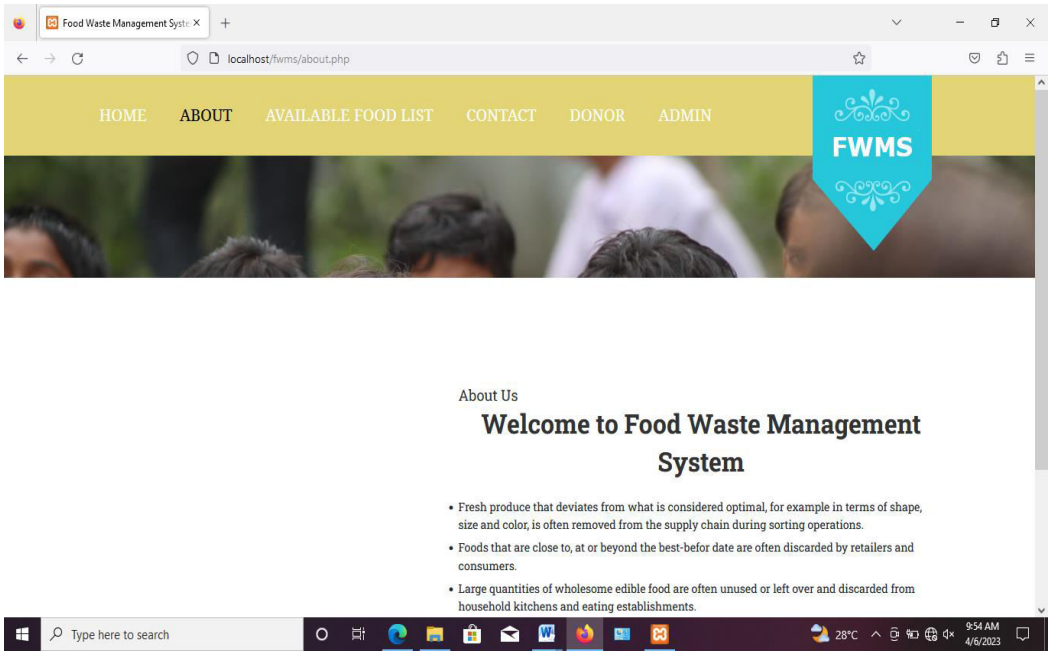
| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | |Impact Factor: 8.379 |

|| Volume 11, Issue 4, April 2023 ||

| DOI: 10.15680/IJIRCCE.2023.1104063 |

Homepage Module

About Us Module:

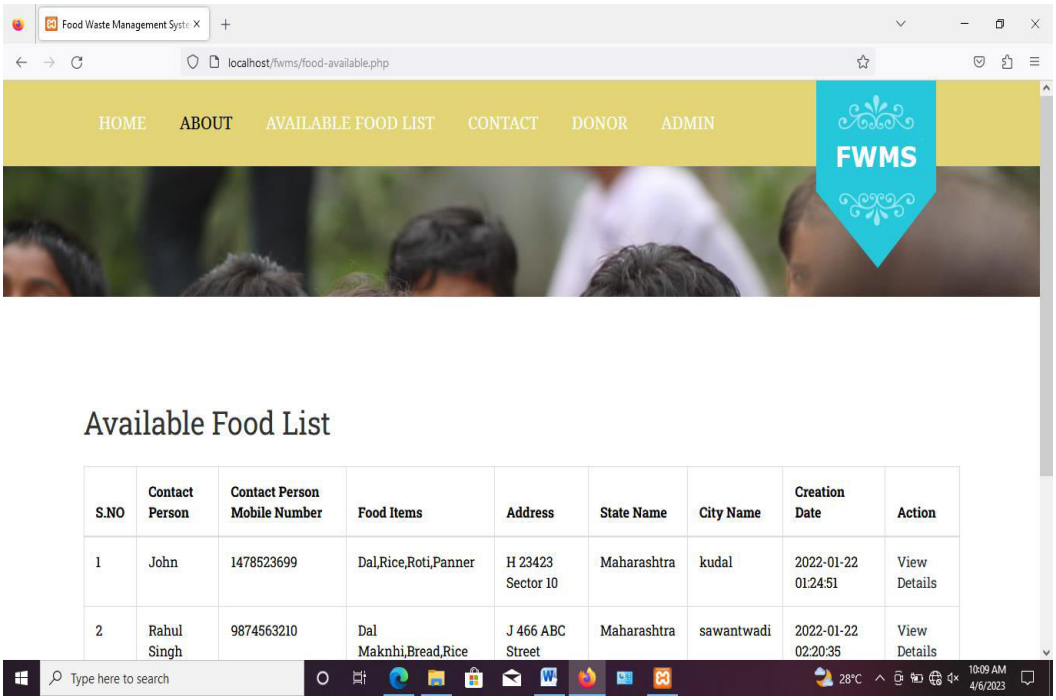


| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | |Impact Factor: 8.379 |

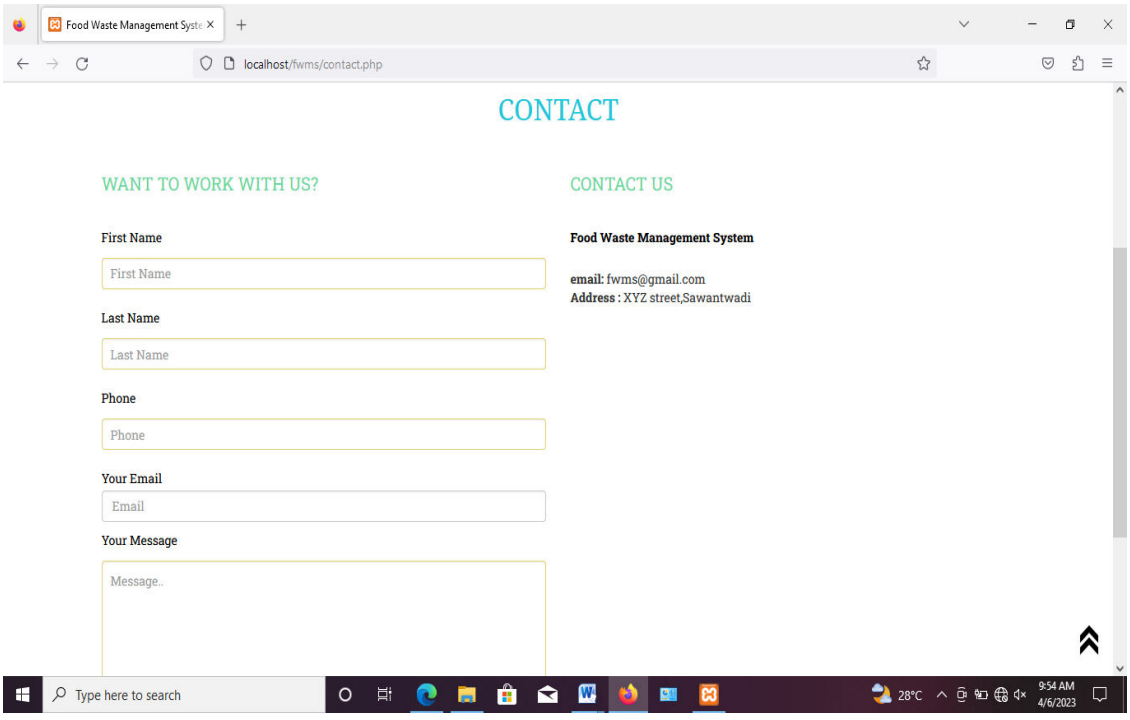
|| Volume 11, Issue 4, April 2023 ||

| DOI: 10.15680/IJIRCCE.2023.1104063 |

Available food list Module:



Contact Us Module:

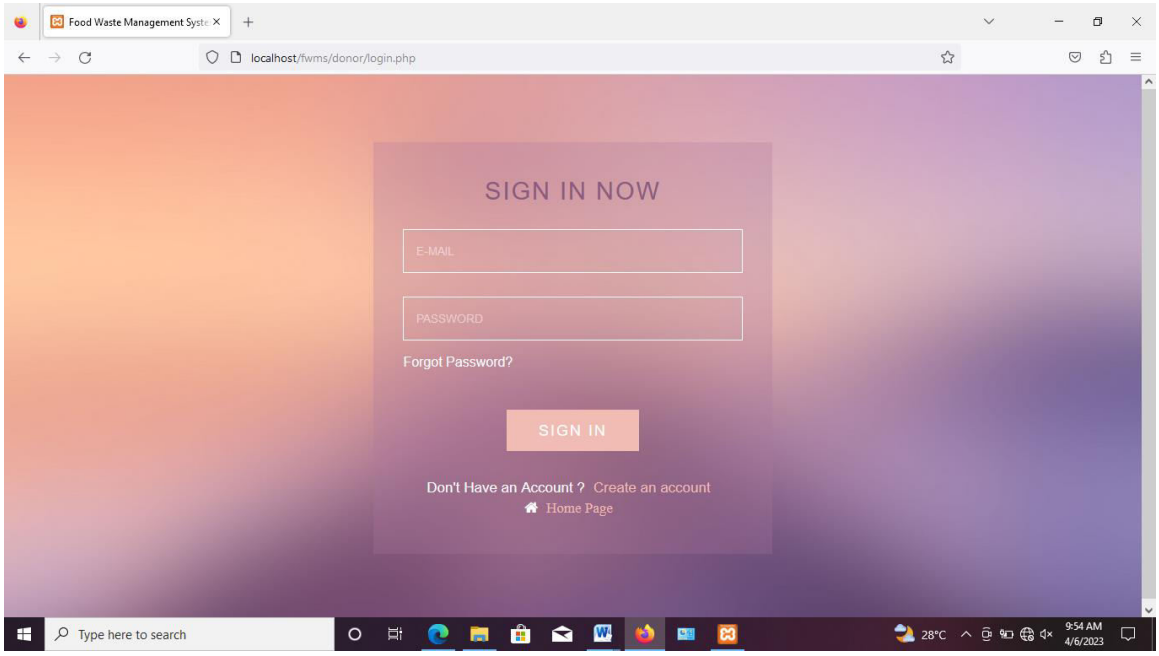


| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | |Impact Factor: 8.379 |

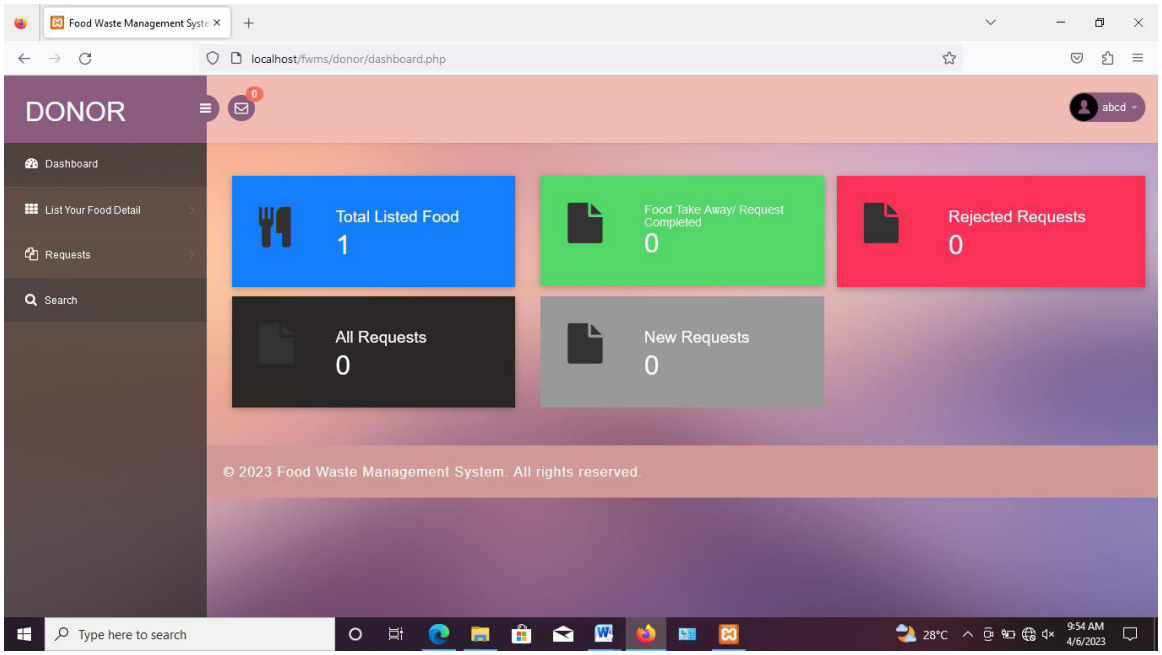
|| Volume 11, Issue 4, April 2023 ||

| DOI: 10.15680/IJIRCCE.2023.1104063 |

Donor login Module:



Donor dashboard Module:

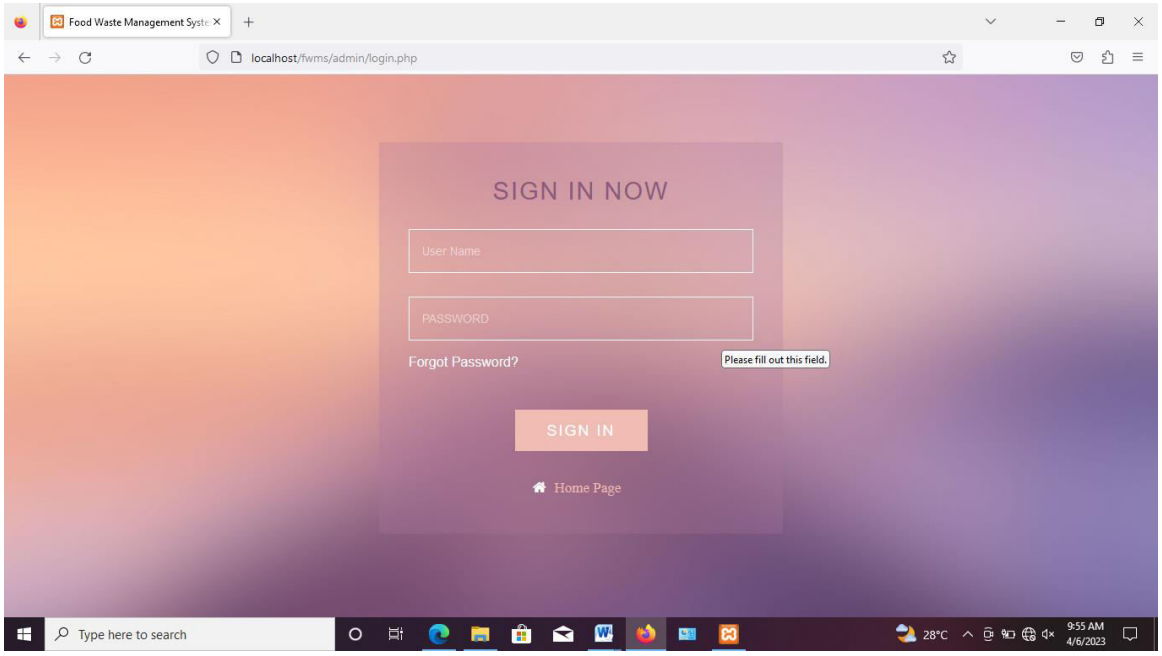


| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | |Impact Factor: 8.379 |

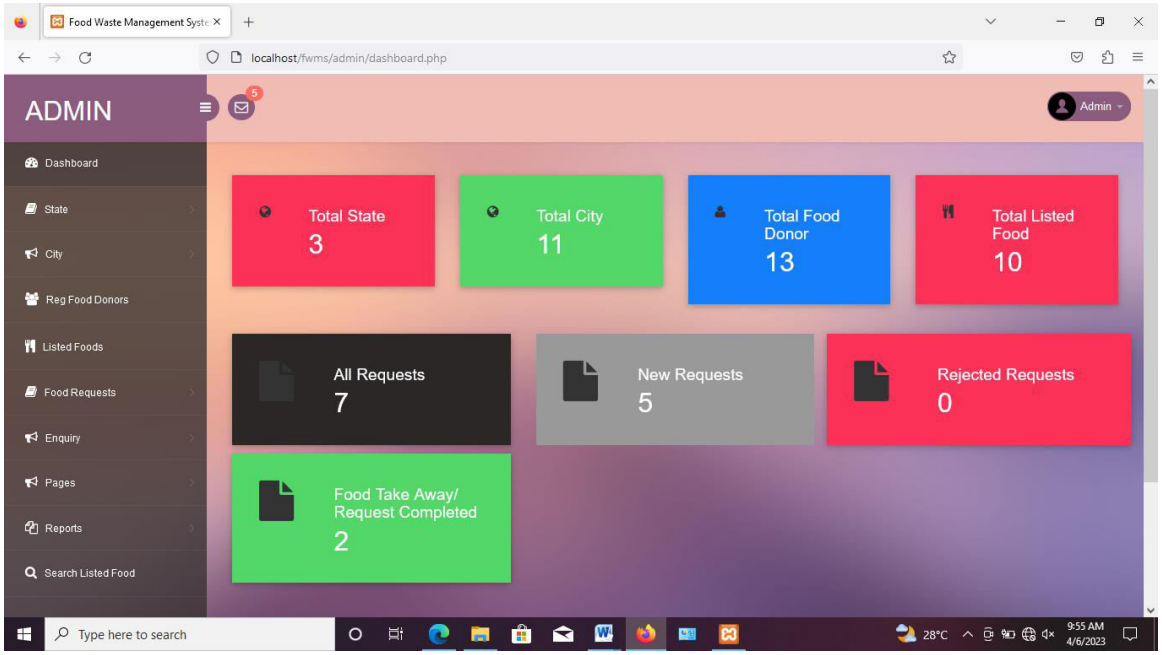
|| Volume 11, Issue 4, April 2023 ||

| DOI: 10.15680/IJIRCCE.2023.1104063 |

Admin Login Module:



Admin dashboard Module:



| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | |Impact Factor: 8.379 |

|| Volume 11, Issue 4, April 2023 ||

| DOI: 10.15680/IJIRCCE.2023.1104063 |

VIII. CONCLUSION

Our study has look into the problem of food waste that has many serious side effects economically and socially. However, the waste of the food can be prevented or at lowest decreased using political rules and technology. Website technology is helpful for food waste Food waste has serious social and environmental implications, but many of us don't think twice about it. Our hope is that after learning more about this this prevalent problem,

REFERENCES

Jounaral papers:

[1]. Mr. Komal Mandal, Swati Jadhav,Kruti Lakhani,"food wastage reduction through donation using modern technological approach: Helping Hands",April 2016, International Research Journal of Advanced Research In Computer Engineering and Technology (IJARCET)

[2]. Divyesh Jethwa1, Ayushi Agrawal2, Rohan Kulkarni3, Leena Raut4," Food Wastage Reduction Through Donation", 2018, International Journal of Recent Trends in Engineering & Research(IJRTER)

[3]. R.Adline Freeda1, M.S.Sahlin Ahamed2,"Mobile Application for Excess Food Donation and Analysis" ,April 2018, International Journal Of Innovation Research In Science Engineering & technology(IJIESET)

[4]. MS. Konka Anusha #1, MS. Ravipathi Bhargavi #2, MR. Maddali Ram Sai Kalyan #3, MR. Vadavalli Ajay krihna#4, MR. N.Suresh#5,"Food Wastage Reduction through Donation using New Approach: Helping Hands", March 2019, Universal Review Volume VIII,Issue III

[5]. Varsha Jain (2016) "An Automated Food Wastage Tracking System for Dormitory Student's Mess", International Conference on Internet of Things and Applications (IOTA) [6]. Karthika, Somu.C.S(2016) "A Multilevel Approach for Generating Report based on Information Filtering ",International Conference onElectrical, Electronics, and Optimization Techniques

Internet/website:

1. https://www.emizentech.com/blog/food-waste-management-app-development.html
2. https://www.avristech.com/food-waste-management-in-india/
3. https://zipinventory.com/food-waste-management.html
4. https://corpbiz.io/learning/scope-of-food-waste-management-business-in-india/

INNO SPACE
SJIF Scientific Journal Impact Factor
Impact Factor: 8.379

doi cross ref

ISSN INTERNATIONAL STANDARD SERIAL NUMBER INDIA

निस्केयर NISCAIR

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

9940 572 462 6381 907 438 ijircce@gmail.com

www.ijircce.com

Scan to save the contact details