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Food Donation Management System

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ABSTRACT

This project is used to manage wastage foods in a useful way. Every day the people are wasting lots of foods. So we have to reduce that food wastage problem through mobile. If anyone has wastage foods they click message send button and it will send the message of food availability, location information and their registered mobile number to nearest (30km) food donators. Then who will make a call first they will get the food. This system is android based application provides interaction between mobile users and NGO's. The Food Donation Management System (FDMS) outlined in this methodology offers a comprehensive approach to addressing food insecurity by facilitating the efficient collection, storage, and distribution of donated food items. Through stakeholder engagement and needs assessment, the system is designed to meet the specific requirements of local communities. Key features include user-friendly platforms for donors to register and schedule pickups, logistics planning for efficient transportation and storage, volunteer management, and quality control measures to ensure food safety. The system incorporates monitoring and evaluation metrics to assess its impact on reducing food insecurity and allows for continuous improvement based on stakeholder feedback. By implementing the FDMS, communities can streamline their food donation processes and effectively address the challenges of hunger.

Keywords: Food Donation, Management System, Quality Control, Monitoring and Evaluation, Community Impact, etc.

I.INTRODUCTION

In the country where the commercial status has reached in a stage that tons of avail- able edible food is heaved away as waste in every stage of the marketing. Food wastage is estimated 25 percentage of the available amount of succulent food. The food is important energy demanding product group and resource. The prevention of food waste can be done by contributing to save resources to reduce environmental impact during all stages of marketing system. Nobody intends to waste food in the beginning, some situation in marketing behaviour and individual lead to the food waste. People waste edible food as an accomplishment suggestive of our population.

Food throwing is a disquieting issue everywhere. The street and trash bins depot have more food as a clue to prove it. The functions and party halls of hotels eject out so much food. Undivided community evolution setup is up to forty percent food is composed is starved. Fifty thousand crore amount of food is thrown and wasted every time. "World Environment Day" operation conducted in this year is on subject "Think Eat Save". The operation is based on anti-food diffusion and bread loss. The politics

action is answerable to needy people facing complication in food today. The civilization and traditions are playing a lead role in drama of wasting edible food.

The gigantic wedding conducting consists of largest dinner of variety foodstuff. The succulent food which is wasted could be reorganizing for human utilization. Throwing available and edible waste food can be simply nourished by someone else and is sheer wastes of resources. orphanage works as food collectors, collects food and redistribute dry food and cooked food from donor to community centers (needy people). The approach deals with collecting the food waste by orphanage and donating to needy people (charity homes), considering the types and sources of food. The approach support orphanage to collect surplus food waste from donor and donate that food to needy people. Food is currently accessible in large quantities for supply to the Angio. Food must be consumed within 2-3 hours. Please contact us before the deadline.

Fig 1. Food Donation Management System

II. BACKGROUND STUDY

In every Indian wedding, food is the most important part and the most wasted too! In India, statistics related to food wastage at weddings have been quite shocking, given the fact that it is the same country where countless number of people have to survive without the basic necessity of two meals a day. Following list by Venue Monk will give you an idea as to how much food is actually being wasted. Have a look:

As the ranks of India's wealthy surge with rapid economic growth, many families are staging extravagant displays of food at their children's weddings to show off their newfound affluence About one-fifth of the food served at weddings and social gatherings is discarded. The prodigious waste that follows has horrified many in a country where food prices are skyrocketing and tens of millions of young children are malnourished

III. LITERATURE SURVEY

Food waste is a serious problem that occurs in various countries. Indonesia is a country that produces food waste, the second largest after Saudi Arabia. Currently, there are several communities who care about the issue of food waste and hunger in Indonesia. The Community collects excess food from eligible donor consumption to be distributed to people in need. They have the aim to reduce the problem of food waste and numbers starving in Indonesia.

However, the process of channeling food to donors and the community is still practically a manual where the community contacts the donors one by one, so it is considered less effective. This research aims to create a system to connect the community with individuals or organizations that want to donate excess food. In order for users to give faster feedback, this system was made using the prototype methodology. At the final stage of the development, testing was carried out by involving several volunteers and 3 communities to see the

completeness of the features system. FoodX system made already accommodate the needs of 2 types of food communities (with and without volunteer).

Wasting food is a common problem in our society. Food waste management is crucial since it can improve our environmental and economic sustainability. We have identified the use of mobile technology to reduce food waste management and built an android mobile application that allows restaurants to donate and share their foods and leftovers with people in need. This app will enable users to register, login, view items, add items, add items to cart, remove an item from the cart, and log out. This app is using the firebase storage and real-time database. Any user in need can see all the food images donated by different users and add it to his or her cart.

IV. METHODOLOGY

1. **Needs Assessment**: Conduct a thorough assessment to understand the local food insecurity issues, including the population in need, types of food required, and existing donation channels.
2. **Stakeholder Engagement**: Engage with key stakeholders such as local charities, food banks, government agencies, and potential donors to gather insights and establish partnerships.
3. **System Design**: Design a user-friendly platform that allows donors to easily register, input food donation details, and schedule pickups or drop-offs. Include features for inventory management and tracking of donated items.
4. **Database Setup**: Develop a secure database to store information about donors, recipients, and donated items. Ensure data integrity and privacy compliance.
5. **Logistics Planning**: Develop a logistics plan for collecting, storing, and distributing donated food items efficiently. Consider factors such as transportation, storage facilities, and distribution networks.
6. **Volunteer Management**: Implement a system for recruiting, training, and managing volunteers who assist in various tasks, including food collection, sorting, and distribution.
7. **Communication Strategy**: Establish clear communication channels to keep donors, recipients, and volunteers informed about donation opportunities, collection schedules, and impact updates.
8. **Quality Control**: Implement quality control measures to ensure that donated food items meet safety and hygiene standards. Train staff and volunteers on proper handling and storage procedures.
9. **Monitoring and Evaluation**: Develop metrics to monitor the effectiveness of the food donation system, including the quantity of food collected, the number of recipients served, and the impact on reducing food insecurity.
10. **Continuous Improvement**: Regularly review feedback from stakeholders and performance data to identify areas for improvement. Adapt the system to address emerging challenges and optimize operations for maximum impact.

V. CLASSIFICATION

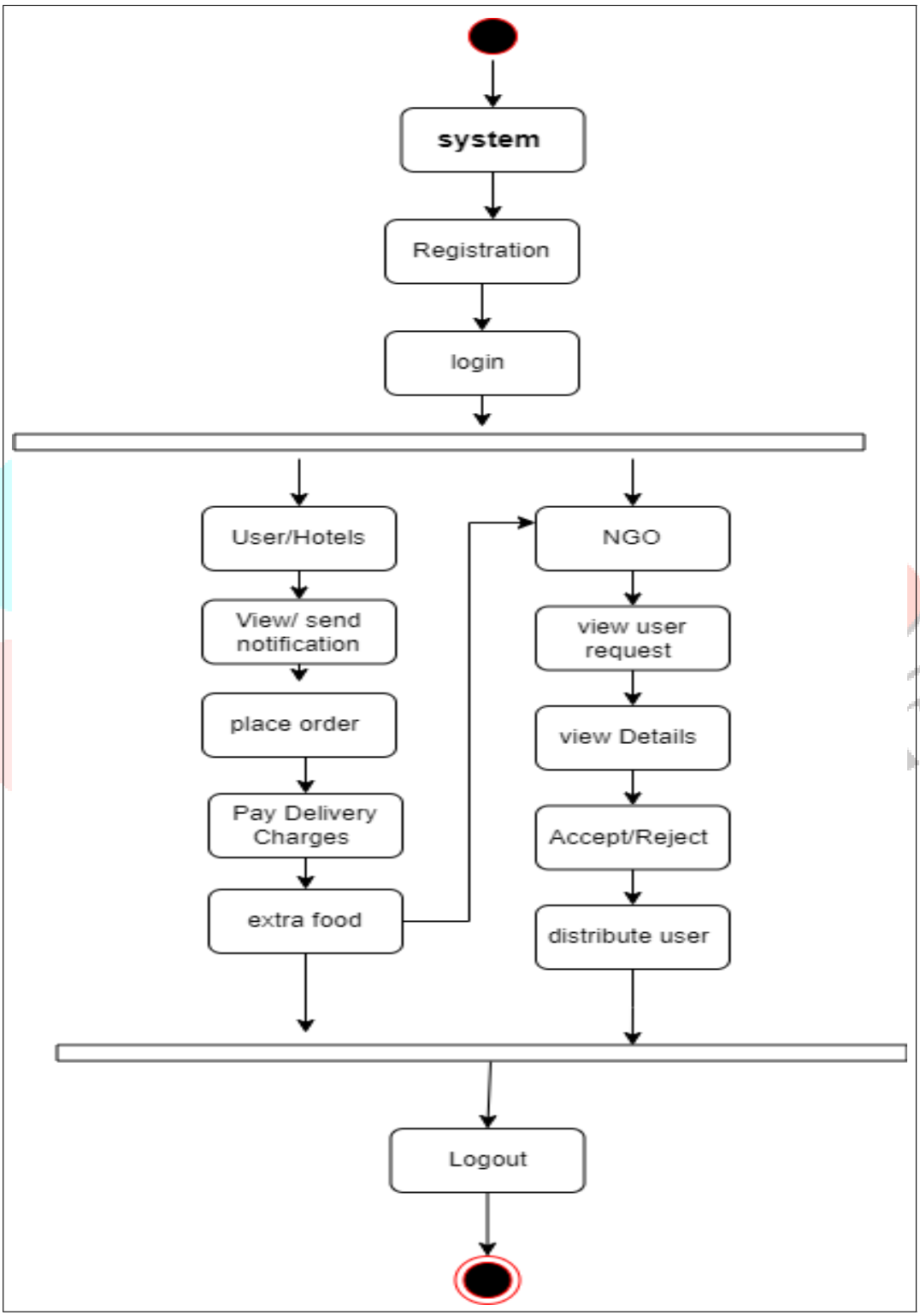

Fig2: Activity Diagram

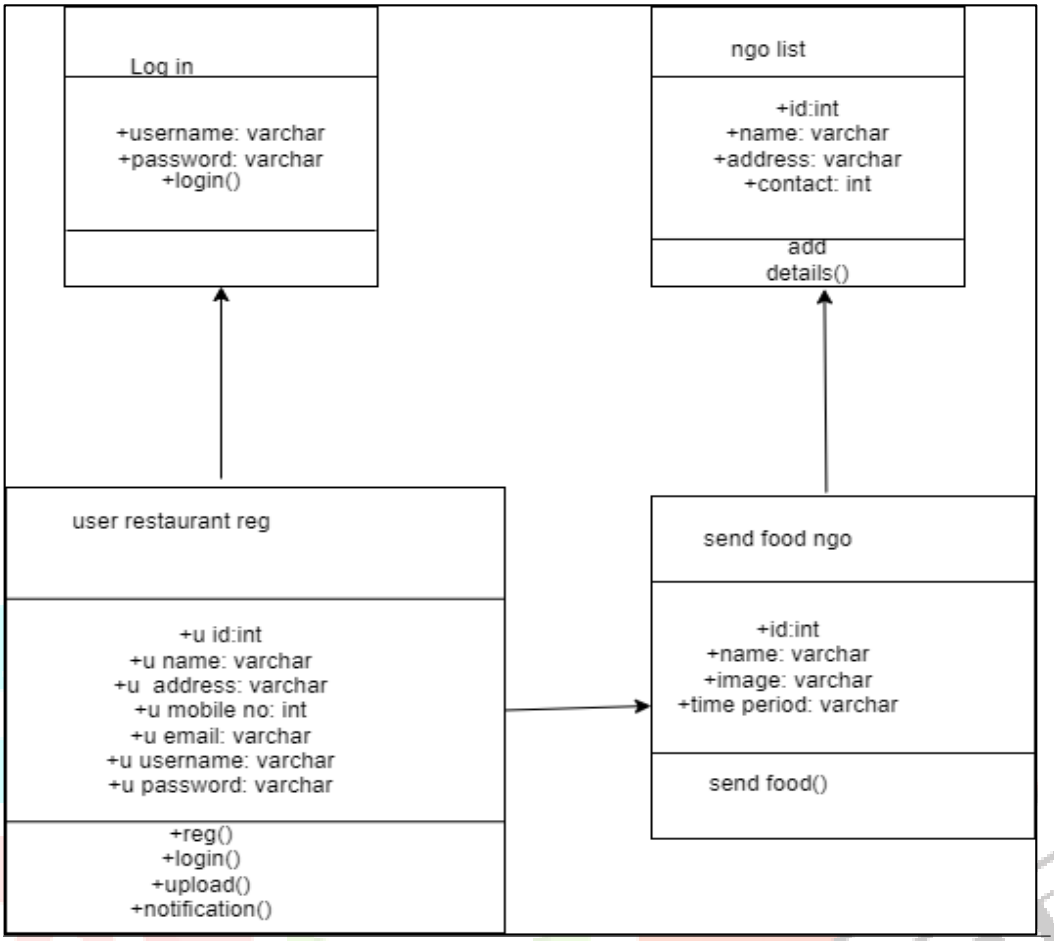

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Fig3: Class Diagram

VI. FUTURE SCOPE

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.

VII. CONCLUSION

The sustenance approach serves to stay away from crevice between the Ngo and Donor. The approach serves to give the sustenance waste to the penniless individuals who are battling for nourishment. Food is currently accessible in large quantities for supply to the Angio. Food must be consumed within 2-3 hours. Please contact us before the deadline. The approach unite these two, in such a route, to the point that these NGOs can persuade the "nourishment to be squandered" without bother, and the inns/eateries/party-lobbies discover these sustenance seekers with no additional exertion then it will serve a more noteworthy cause and will be an enormous administration to mankind.

VIII. ACKNOWLEGMENT

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