FOODBRIDGE (FOOD DONTATION APP)

Sakshi Narkhede,Cummins College Of Engineering For Women's, Nagpur, India
Divyani Patil, Cummins College Of Engineering For Women's, Nagpur, India
Sanskruti Ragit, Cummins College Of Engineering For Women's, Nagpur, India
Twinkal Pawar, Cummins College Of Engineering For Women's, Nagpur, India
Sharayu Deote, Cummins College Of Engineering For Women's, Nagpur, India

A B S T R A C T

This abstract outline a groundbreaking approach to combatting food wastage and hunger through the development of a Food Donation Android App using Kodular. The app serves as a platform for the effortless donation of surplus food to registered NGOs, directly addressing the urgent issue of food insecurity. Both NGOs and donors can register on the platform, facilitating the connection between surplus food and those in need. With its intuitive interface, powered by Kodular, the app ensures a user-friendly experience for both donors and NGOs, thereby promoting efficient food redistribution. Through the convergence of technology and community goodwill, this initiative takes on the dual challenges of food wastage and hunger. By utilizing this innovative app, individuals and organizations can actively participate in reducing food waste and providing crucial support to vulnerable communities, ultimately fostering a more sustainable and compassionate society.

Keywords: Food Donation, Android App, Kodular, Surplus Food, NGOs, Food Insecurity, Hunger, Community, Technology, User-friendly Interface, Efficient Redistribution, Sustainability, Compassion.

INTRODUCTION

In a world where hunger and food wastage are pressing concerns, the introduction of a Food Donation Android App created with Kodular offers a ray of hope and efficiency. This app serves as a digital platform facilitating the easy donation of excess food from individuals, restaurants, events, and businesses to NGOs dedicated to combating hunger. The beauty of this initiative lies in its simplicity and accessibility. Through the user-friendly interface built with Kodular, both NGOs and potential food donors can register effortlessly. Donors can provide details about the surplus food they want to donate, while NGOs can outline their missions and specific requirements. A key feature of the app is its geolocation functionality, which enables donors to pinpoint their location for convenient food pickup by partnering NGOs, streamlining the donation process and ensuring prompt delivery to those in need. Moreover, the app incorporates robust security measures to protect user privacy and foster trust between donors and NGOs, enhancing confidence in the donation process. Beyond its immediate impact on hunger relief efforts, the app has the potential to foster a sense of community and social responsibility by empowering individuals and businesses to contribute to meaningful causes. In conclusion, the Food Donation Android App developed using Kodular represents a powerful blend of technology and altruism. By leveraging the widespread use of smartphones and the simplicity of Kodular's development platform, it aims to revolutionize food donation practices, contributing to a more equitable and sustainable future.

PROBLEM DEFINITION

The project at hand seeks to tackle the issue of food wastage and hunger by developing a user-friendly Android app using Kodular. This app will serve as a platform for individuals and organizations to donate surplus food to NGOs. Donors can easily input details about the food they wish to donate, while NGOs can specify their requirements and pickup preferences. The app will then match donors with nearby NGOs, streamlining the process of food donation and pickup. With intuitive

interfaces designed using Kodular, the app aims to make the donation process accessible to a wide range of users, ultimately reducing food waste and providing support to those in need.

FLOWCHART
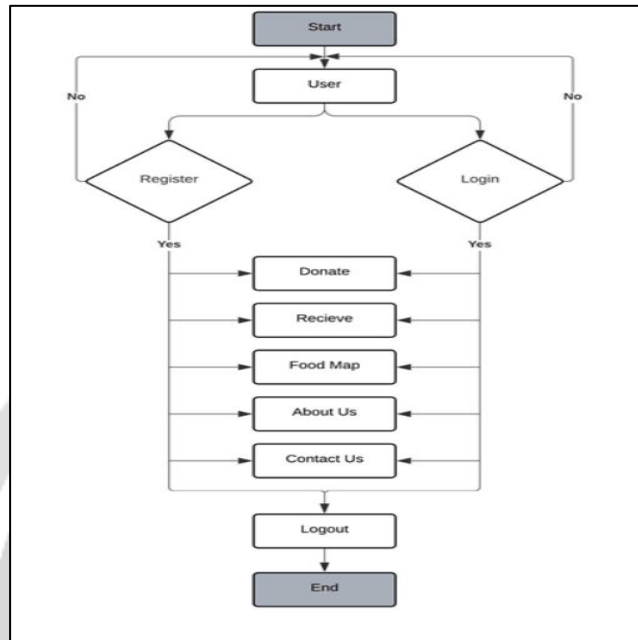
OBJECTIVES

1. Create an easy-to-use interface that guides users seamlessly through the app's functions.

2. Establish robust registration and login processes, ensuring the security of user accounts for both NGOs and donors.

3. Develop smart algorithms that swiftly connect donors with nearby NGOs based on their donation preferences.

4. Implement instant notifications to keep users updated on donation opportunities and confirmations in real-time.

5. Integrate GPS technology to accurately track locations for efficient pickup and delivery coordination.

6. Enable secure payment gateways to support monetary contributions, ensuring the app's sustainability.

7. Provide detailed reports and analytics to promote transparency and track the impact of donations.

8. Encourage community involvement through social sharing options and feedback channels, fostering a sense of collaboration and support.

LITERATURE SURVEY

In "Aahar - Food Donation App" (June 2021), the focus is on providing a comprehensive platform for donating various items, including food, clothes, books, and utensils. The app features three modules: User, NGO, and Admin. Users can donate food by providing details such as type, location, cooking date and time, and availability. NGOs can then collect the donated items by selecting pickup times. Developed using Java and XML on Android Studio, the app streamlines the donation process efficiently.

Meanwhile, "Zero Hunger: Smart Food Donation System using IoT" (May 2021) utilizes IoT technology for food quality assurance. It consists of two modules: User and NGO. Users can donate food with descriptions and quantities, and NGOs can view donation details and assign volunteers to receive the food using IoT devices. The volunteers confirm the food's quality and distribute it to slum areas, ensuring efficient and safe donation processes.

Lastly, "Food Donation Application: Food Share" (May 2021) presents a unique approach where individuals in need, whether NGOs or individuals, register directly. When users want to donate food, they can select the recipients, ensuring that the intended organizations or individuals receive the donations directly. This lateral ideology streamlines the donation process and ensures that donations reach those most in need efficiently.

WORKING

In today's world, where food insecurity remains a pressing issue, the development of a food donation Android app using Kodular can serve as a pivotal solution to bridge the gap between surplus food and those in need. With this app, donors and NGOs can seamlessly connect to facilitate the redistribution of excess food, ensuring it reaches those who require it the most. The app's functionality begins with a user-friendly interface allowing both NGOs and donors to register themselves. Donors can input details about the surplus food they wish to donate, including type, quantity, and expiration date. Simultaneously, NGOs can register to receive donations, providing information about their organization and their specific needs.

Upon registration, the app employs geolocation services to match nearby donors with relevant NGOs. Donors can then schedule pickups or drop-offs directly through the app, streamlining the donation process and minimizing logistical hurdles. To ensure transparency and accountability, the app incorporates features such as real-time tracking of donations and confirmations upon receipt by NGOs. Donors receive notifications confirming the successful delivery of their donations, fostering trust in the system and encouraging continued participation.

Moreover, the app includes a feedback mechanism where both donors and NGOs can rate and review their experiences, further enhancing transparency and improving the overall efficiency of the platform. IN addition to facilitating individual donations, the app can also support corporate and event-based donations by enabling businesses and organizers to register and coordinate large-scale contributions.

Furthermore, the app can include educational resources and information about food waste reduction and hunger alleviation, empowering users to make informed decisions and fostering a culture of compassion and social responsibility. By leveraging the power of technology and community goodwill, this food donation Android app has the potential to make a tangible impact in the fight against hunger while promoting sustainable practices and fostering a sense of solidarity within society.

SOFTWARE USED
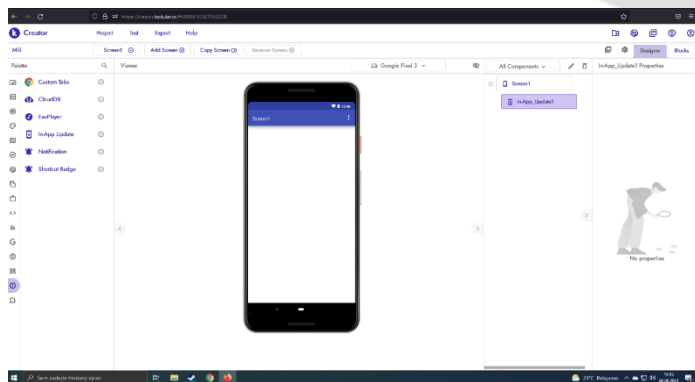
Kodular is a free and intuitive online platform for building Android applications without the need for extensive coding knowledge. It operates on a drag-and-drop interface, allowing users to create functional and visually appealing apps using a variety of pre-built components and blocks. Originally based on MIT App Inventor, Kodular offers additional features and enhancements, making app development accessible to a wider audience.

One of the standout features of Kodular is its extensive range of components, which include tools for user interface design, data management, connectivity, and multimedia integration. These components can be easily customized and combined to suit specific app requirements.

Furthermore, Kodular supports a wide range of functionalities, including GPS location tracking, in-app purchases, notifications, and integration with external services through APIs. This versatility enables developers to create diverse and feature-rich applications tailored to various purposes and industries.Kodular also provides comprehensive documentation, tutorials, and an active community forum where users can seek assistance, share ideas, and collaborate on projects. Additionally, it offers monetization options, allowing developers to generate revenue from their apps through advertisements and in-app purchases.Overall, Kodular empowers individuals and organizations to create high-quality Android apps efficiently, democratizing app development and fostering innovation in the mobile space.

ADVANTAGES:

1.Seamless Connection: This app bridges the gap between donors and NGOs, offering a seamless platform for them to connect effortlessly and facilitate food donations.

2.Streamlined Operations: With the power of an Android app, the donation process becomes   highly efficient, minimizing the time and energy needed for coordination and ensuring that surplus food reaches those in need swiftly.

DISADVANTAGES:

1.Accessibility Challenges: The app's effectiveness may be hindered by its reliance on smartphone technology, as not all potential donors or NGOs may have access to smartphones or reliable internet connections, thereby limiting its reach to a broader audience.

2. Exclusion of Non-Tech-Savvy Individuals: The dependence on an Android app might exclude certain demographics, such as the elderly or economically disadvantaged individuals who may not be familiar with technology or cannot afford smartphones, thereby potentially excluding them from participating in food donation initiatives.

APPLICATION

1.Intuitive Interface for Easy Navigation: The application should have a user-friendly design that is easy to understand and navigate. This includes clear menu structures, easily identifiable buttons, and intuitive workflows to guide users through the donation process without confusion.

2.User Registration & Profiles: Users, including both NGOs and donors, should be able to register within the app. During registration, they can create profiles where they provide necessary information such as their contact details, location, and any preferences or restrictions they may have regarding donations.

3.Geolocation for Locating Nearby NGOs: Integration of geolocation services enables the app to identify the user's current location. This functionality allows donors to easily find nearby NGOs to donate food to, streamlining the process and encouraging local donations.

4.Donation Tracking for Transparency: Donors should have the ability to track their donations within the app. This feature provides transparency by allowing donors to see where their donations are going and how they are being utilized by the NGOs. It builds trust and encourages continued participation in donation efforts.

5.Real-time Notifications for Updates: The app should send real-time notifications to users to keep them updated on relevant information such as donation requests, pickup schedules, or any changes or updates to their donations. This ensures that users stay informed and engaged throughout the donation process.

6.Inventory Management Tools for NGOs: NGOs should have access to tools within the app to manage their incoming donations effectively. This includes features such as tracking the quantities and types of food received, monitoring expiration dates, and organizing inventory to ensure efficient distribution to those in need.

7.Feedback & Rating System for Accountability: Implementing a feedback and rating system allows both donors and NGOs to provide feedback on their donation experiences. This fosters accountability within the community, as users can share their experiences and provide constructive feedback to improve the donation process.

8.Integration with Social Media for Increased Awareness: The app should integrate with social media platforms to allow users to share their donation activities with their social networks. This helps increase awareness of food donation initiatives and encourages more people to participate, ultimately amplifying the impact of the app and its mission.

RESULTS
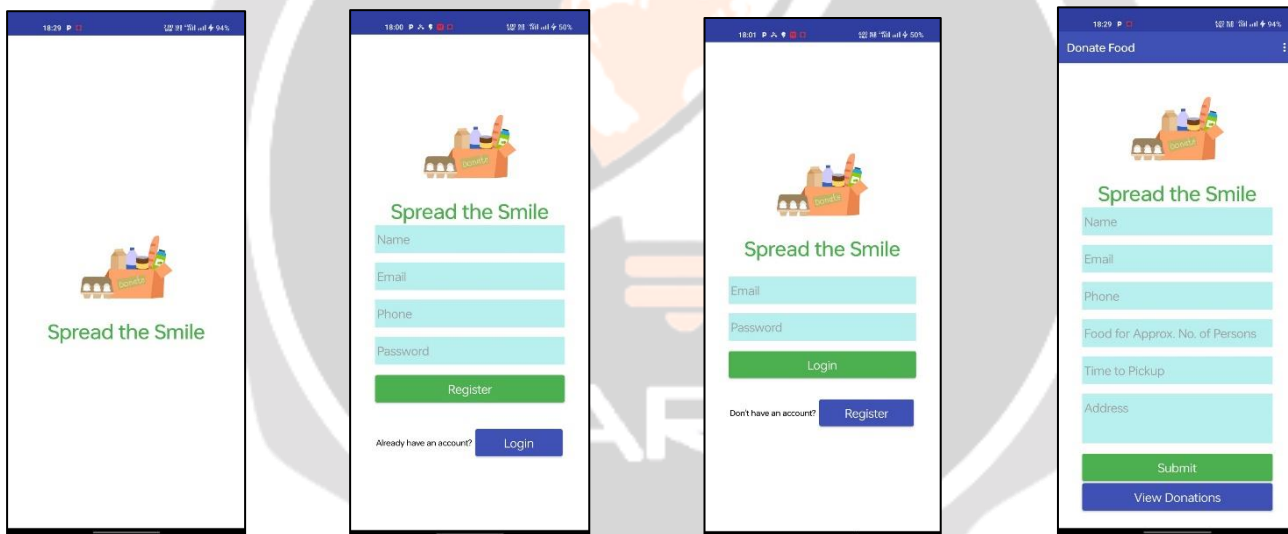
CONCLUSION

In conclusion, the development of a Food Donation Android App using Kodular presents a pioneering solution to combat food wastage and hunger effectively. This initiative facilitates the seamless donation of surplus food to registered NGOs, directly addressing the pressing issue of food insecurity in communities. By providing a platform for both NGOs and donors to register and connect effortlessly, the app streamlines the process of redistributing surplus food to those in need. With its user-friendly interface, powered by Kodular, the app ensures an intuitive experience for users, promoting efficient food redistribution and fostering a sense of community goodwill. Through the integration of technology and collective action, this initiative tackles the intertwined challenges of food wastage and hunger head-on. By embracing this innovative app, individuals and organizations can actively contribute to reducing food waste and providing vital support to vulnerable

communities, thereby paving the way for a more sustainable and compassionate society.

REFERENCES

[1]https://ijsret.com/wp-content/uploads/2021/05/IJSRET_V7_issue3_325.pdf　　　[2]https://www.ijert.org/review-on-literature-survey-share-my-food-application
[3]https://ijarsct.co.in/Paper1124.pdf　　　[4]http://www.ijirset.com/upload/2018/n3cit/13_CONFERENCE%2030.pdf
[5]https://ijcsmc.com/docs/papers/October2019/V8I10201907.pdf
[6]https://www.irjet.net/archives/V8/i5/IRJET-V8I5336.pdf
[7]https://www.researchgate.net/publication/347946627_Review_in_Food_Wastage_Reduction_Through_Donation_Application
[8]https://www.ijert.org/food-conservation-application-mobile-app-connecting-provider-and-consumer
[9]https://www.irjet.net/archives/V7/i3/IRJET-V7I3400.pdf
[10]https://ieeexplore.ieee.org/document/9375945/authors#authors