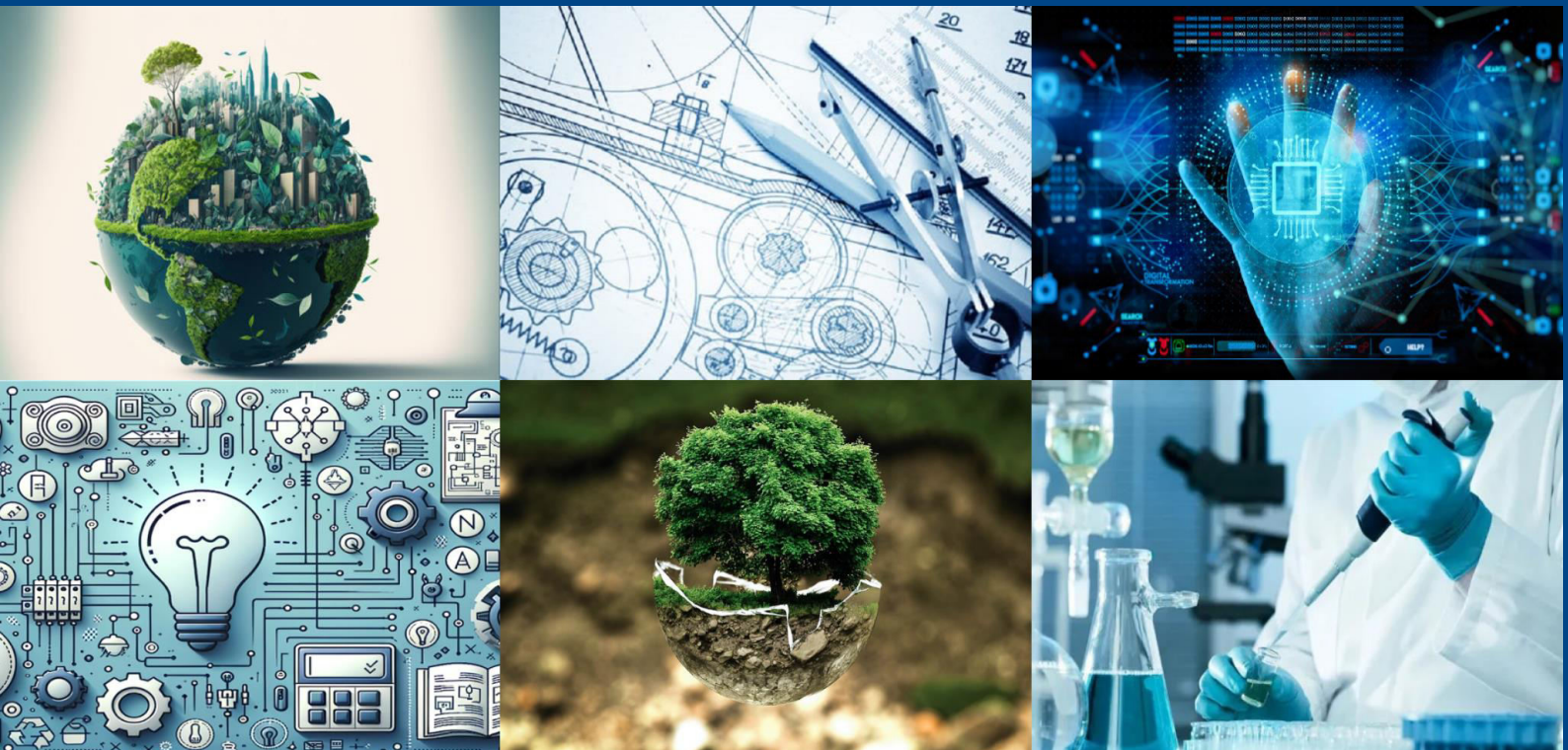




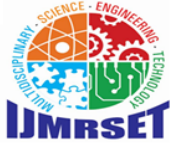
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Hunger Help- The Food Donation App

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ABSTRACT: In extraordinarily inhabited international locations like India, food waste is frequently an annoying problem. The streets, rubbish boxes and landfill had sufficient evidence to show it. Weddings, canteens, eating places, social and own circle of relatives' get-together and features expel out such hundred's meals. Food wastage isn't always solely a demonstration of starvation or pollution, however similarly of the diverse monetary problems. The excessive common of residing has resulted at durations the wastage of food, clothes, then on. Due to quick modifications in behavior and lifestyle. In place of losing those items we have a propensity to are capable of location them in use through donating them to numerous corporations recognize orphanages, maturity homes, then on. The artefact is an internet- primarily based totally android software that essentially goals at contributions through donations. As referred to past at durations the define there' several food wastages that takes place every day at eating places and cafes. In place of abandonment a comparable as trash it will be used feed the needy people.

To avoid this drawback, we've a bent to develop a Food donation app for Android to reduce food waste by donating excess food to poor or needy people. To beat this problem the android application is advanced to reduce the food wastage through donating additional food to poor.

KEYWORDS: Food Wastage, Receiver, Android, Needy, Hunger, Donor, Food Donation.

I. INTRODUCTION

Hunger and food wastage are two of the most critical global challenges that need immediate attention. While millions of people suffer from starvation and malnutrition, an alarming **1.3 billion tons of food is wasted annually**, which accounts for nearly one-third of the total food produced worldwide. A significant portion of this wastage occurs at restaurants, hotels, events, and households. At the same time, thousands of people, especially children, die daily due to hunger and malnutrition. This stark contrast highlights the need for a **structured and efficient food donation system** that can bridge the gap between surplus food and those in need.

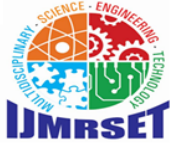
The **Hunger-Free Food Donation Project System** is an **Android-based application** designed to reduce food wastage by connecting food donors with NGOs and organizations that distribute food to the hungry. Individuals, restaurants, and event organizers can register on the platform to donate surplus food, while NGOs and charities can request food based on their needs. The application ensures a **systematic and efficient food distribution network**, enabling timely pickups and reducing food wastage. With real-time tracking, notifications, and location-based matching, the system simplifies the process of food donation, ensuring that edible surplus food reaches the needy instead of ending up in landfills.

This initiative not only helps **combat hunger and malnutrition** but also contributes to **environmental sustainability** by reducing food waste. Food wastage leads to increased greenhouse gas emissions and unnecessary resource consumption, making it a major environmental concern. By implementing this system, communities can work together to create a **hunger-free world** where surplus food is effectively utilized, and no one has to sleep on an empty stomach.

II. LITERATURE SURVEY

The 2014 document, Smartphone- primarily based totally extra meals deliver chain for Aurangabad City the use of location-primarily based totally GIS and Google internet services, describes the client -Server-GIS and cell utility for make a hungry loose city. The application for the client side gives the possibility, to donate food to people in need. Dispensers give simple information like how much of the food and what kind of food it is with quantity and of it respective contact number

NGO or each social organization work can collect the span Food and deliver to hungry people. When registration is



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complete, is placed on the server-side database from where organizations can store records of donors and their Route optimal from location of the donor to the next NGO or any organization together with addresses. So that hungry people can get food on time [1].

III. ANALYSIS OF EXISTING APPLICATIONS:

We investigated tactics (geolocation, crowdsourcing, and superiority), phases (assembly, dispersal), and, as a result, the number one focus domicile meant for the applications (endowment, involvement, storage, etc.). In addition, we seemed into whether or not any of the applications gathered waste era statistics or provided APIs. Few applications cowl all phases, at the same time as the bulk specialize. Few have taken into consideration collecting facts approximately stuff era withinside the consumption section

To conduct a methodological assessment of the survey findings, we check out whether or not or now no longer the programmers provide a diploma of customer adoption, reputation and knowledge, needs, engagement, and mindset, in addition to behavior extrude in their results. waste-discount processes we check out whether or not the ones programs inspire clients to be well-versed and whether or not They use persuasion techniques to justify their wasteful behavior. Also, whether or not or now no longer they specialize in waste prevention in place of waste generation. Rather than dealing with it Even while interacting with the Infine, if the house equipment specializes in purchaser engagement and creates a superb consumer experience, fun surroundings for the purchaser's device.

- Consumer to consumer:

Around are severa obligations for partaking remains and excess food amongst consumer organizations. These assignments Build organizations of humans withinside the identical area who are much more likely to percentage food and reduce left-over. We have noticed many web sites and apps are lively in England, Germany, Austria, Spain, India, and the United States, building in large cities, organizations as a whole. Some give the impression to be overjoyed with the variety of instals.

- Consumer and retail to charity:

Many community contributions projects are sprouting up to donate an excess of food to a specific contribution's organization.

IV. JAVA

Java is associate object-oriented programming language initiated specially for the platform independence. Before the origin of Java there were many programming languages, but those weren't platform independent. Java has some features those are very powerful compared to all programming features.

Those features are given below.

- Easy and simple.
- Special importance on data rather than procedure.
- Data is not accessible to external function called function called hidden concept.
- Allocate the new memory for data and function is easy.
- Java is helpful to execute the multithreading program.
- Java to let has secure execution.
- Java has a portable concept which we write in one computer and it can execute anywhere or different computer.
- In Java we use Exception handling, String handling, Garbage Collection

V. ANDROID

What is Android?

Android may be a mobile software system that's developed supported the assorted versions of Linux, that are changed because the requirements change.

Android application is an application which is used as an operating system for cell phones. Now days we go through PDA's, television story, touch pads.



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The Android OS is developed by Google. It works at the precept of a Linux kernel, it has diverse layers, for builders there may be a layer referred to as software layer at that layer diverse functionalities are provided. For growing the android software an IDE referred to as android studio is used, in android studio diverse documents are used for one- of-a-kind purposes.

Activity is a Java record which defines the pastime of the app; happen is a record which controls behaviors including app, name, and icon.

ANDROID STUDIO:

Android Studio is the official **Integrated Development Environment (IDE)** for Android app development, developed by **Google** and based on **JetBrains' IntelliJ IDEA**. It provides a **complete set of tools** for building Android applications efficiently, including a powerful code editor, debugging tools, an emulator, and built-in support for various **Android SDKs**.

Android Studio Features:

- Run Instant App.
- Connects to the base of operation.
- fastest emulators.
- Visual layouts editors.
- Up apps for every device.

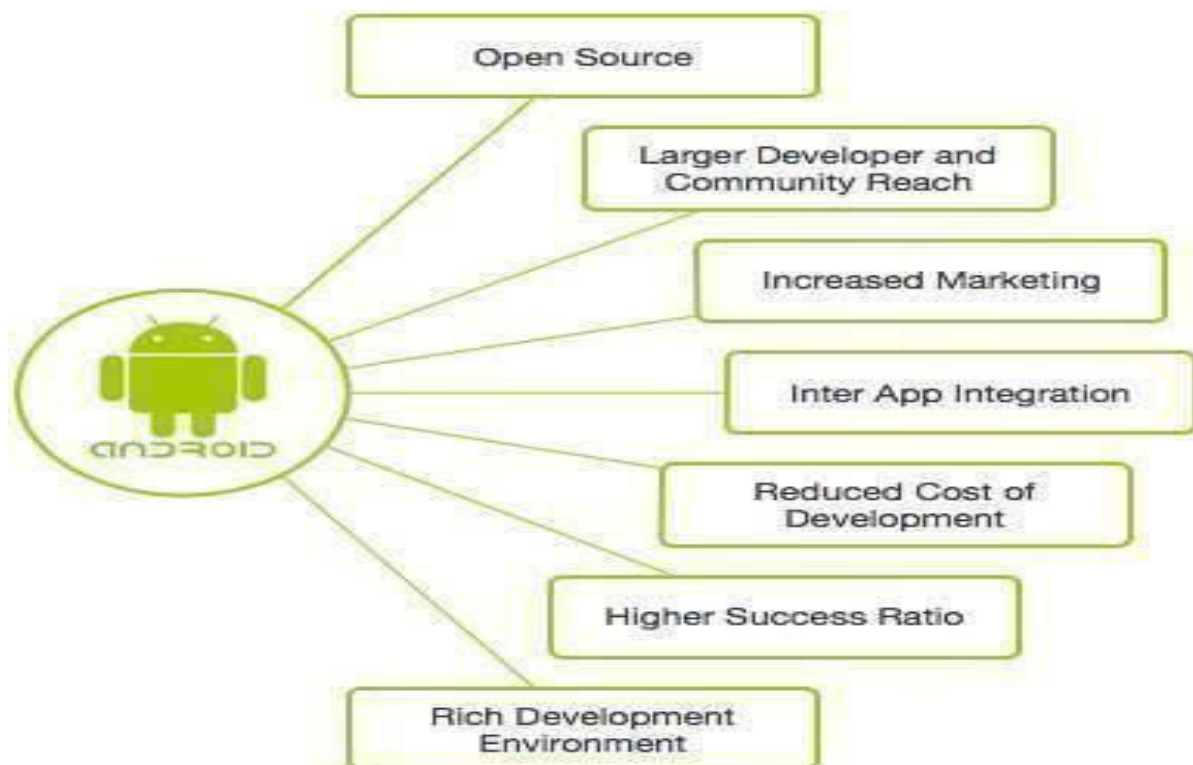
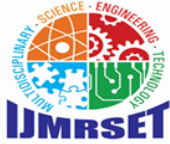


Fig. Overview of the Android

FIREBASE:

Firestore is a tool and a Google platform which includes multiple services that helps many businesses to take care development needs. This tool is useful in developing mobile applications integrated with a real time database. Firestore itself takes care about the server; therefore, there is no need to configure a server. It enabled more developers to shift to this platform from its amazing features.



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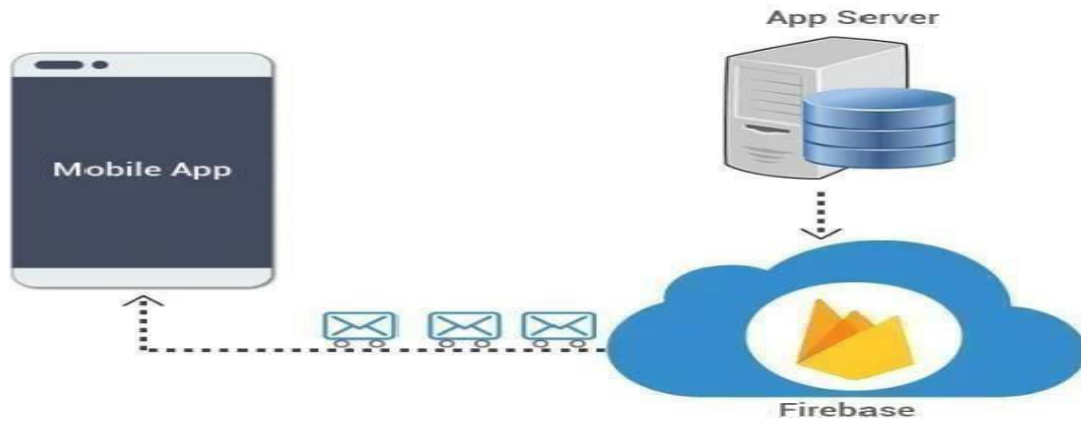


Fig.Firebase_Architecture

Features of Firebase are:

- Authentication and crash reporting.
- Cloud messaging for notifying customers about latest updates.
- Storage capability for user generated data and Real time Database.
- Analytics, App Indexing, Dynamic links and invites.

VI. BLOCK DIAGRAM

The block diagram outlines the user interface and functionality of a mobile app tailored for food donation. At the top, the status bar displays essential information: network connectivity (4G), time (10:57 AM), volume, cellular network type (LTE), and battery level (53%). A unique session ID (d4449314-c3f8-4933-a80e-53abaaca0b8c) is also present for tracking and security purposes. The login screen includes standard fields for username and password, along with options for navigating to the home screen, sending/receiving data (potentially for verification), a flash screen (possibly for assisting with food photos), and the login button itself. The main screen focuses on donation- related actions. Users can post new donation listings with details like name, location, food quality, contact number, and photos. A search bar enables finding nearby donations, specific food items, or recipient organizations. Donation listings are displayed with the sender's name, food description, photo, and an option to view more details. Toast messages provide user feedback, such as "Donation Posted Successfully" or "Pickup Confirmed." The "Order" section, though labeled as such, represents the process of accepting a donation, with details like pickup

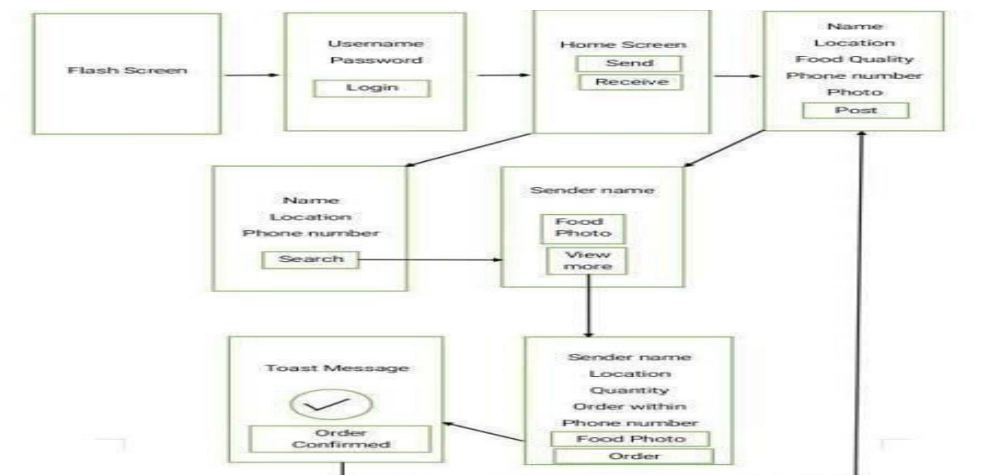


Fig. Block diagram of application



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VII. FUTURE SCOPE

The food donation app meets its core requirements, several enhancements could broaden its impact and user experience. Firstly, incorporating multi-language support would make the app accessible to a wider demographic, fostering inclusivity. Secondly, expanding donation categories beyond food to include items like books and clothing would address more diverse community needs. Thirdly, developing the app as a cross-platform application would ensure seamless functionality across various devices, maximizing user reach. For logistical efficiency, implementing a distance limitation for pickups, such as 30 to 60 minutes, would help streamline operations. Lastly, a tracking feature for donations in transit would provide transparency and peace of mind to both donors and recipients.

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