Table of Contents

|  |  |  |
| --- | --- | --- |
| s. no. | Title | Page no. |
| 1. | Acknowledgment | 1 |
| 2. | Introduction | 2 |
| 3. | Background | 3 |
| 4. | Problem Statement | 4 |
| 5. | Objectives | 5 |
| 6. | Existing system | 6 |
| 7. | Proposed system | 7 |
| 8. | Flowchart | 8 |
| 9. | Tools And Technology | 9 |
| 10. | Future scope | 10 |
| 11. | Conclusion | 11 |
| 12. | Bibliography | 12 |

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Manshi Shukla

2111640580034

**Introduction**

In a world where millions go hungry every day, and yet vast amounts of food are wasted, the need for innovative solutions to bridge this gap has never been more pressing. It is estimated that approximately one-third of all food produced for human consumption is lost or wasted globally each year, amounting to a staggering 1.3 billion tonnes. Meanwhile, millions of individuals, particularly those in underserved communities, struggle to access nutritious meals regular basis.

In response to this critical issue, I want to make a website on which anyone can give food to hungry people or those who have an actual need for food if they have more than sufficient food. This platform serves as a digital intermediary, facilitating the seamless donation of excess food from businesses, events, and individuals to organizations and individuals who are food insecure or facing economic hardships.

Through this website, donors can easily identify opportunities to donate Food, and needy people also easily access it.

**Background**

The issue of food wastage is a global challenge with significant social, environmental, and economic consequences. According to the **Food and Agriculture Organization of the United Nations**, approximately **one-third of all food produced for human consumption is either lost or wasted each year, amounting to roughly 1.3 billion tons.** This wastage occurs at various stages of the food supply chain, including production, processing, distribution, and consumption.

Simultaneously, millions of individuals worldwide struggle with food insecurity and hunger, unable to access an adequate and nutritious diet regularly.

In response to these interconnected challenges, initiatives aimed at reducing food wastage and addressing food insecurity have emerged around the world. One such initiative involves the establishment of food donation programs and platforms that facilitate the redistribution of surplus food to those in need.

These food donation programs play a crucial role in minimizing food wastage by diverting excess food from landfills and incinerators to individuals and organizations that can put it to good use. By redistributing surplus food to food banks, soup kitchens, shelters, and other charitable institutions, these programs help alleviate hunger and provide essential support to vulnerable populations.

However, despite the positive impact of existing food donation initiatives, there remain challenges and inefficiencies in the current system. Many potential food donors are unaware of how to donate surplus food safely and effectively, while recipients may struggle to access reliable sources of donated food. Additionally, logistical hurdles such as transportation and storage often hinder the efficient distribution of food donations.

To address these challenges and enhance the effectiveness of food donation efforts, there is a growing need for innovative solutions that leverage technology and community engagement. A digital platform dedicated to facilitating food donations can serve as a centralized hub for connecting food donors with recipients, streamlining the donation process, and maximizing the impact of surplus food redistribution.

By harnessing the power of the internet and mobile technology, a food donor website can provide a user-friendly interface for donors to list available food donations and for recipients to browse and request specific items based on their needs. Through features such as real-time inventory management, automated notifications, and geolocation services, this platform can optimize the matching of surplus food with demand, minimizing wastage and ensuring that food reaches those who need it most.

In the following sections, we will explore the development and implementation of a food donor website designed to reduce food wastage and bring nutritious meals closer to needy individuals, particularly those living in poverty. We will outline the key objectives, features, and benefits of this platform, as well as strategies for engaging stakeholders and fostering collaboration within the community. Together, we can work towards a more sustainable and equitable food system, where surplus food becomes a valuable resource in the fight against hunger and food insecurity.

## Background for "Share-A-Bite" Website:

**Problem:**

* Food wastage is a significant global issue, leading to environmental and economic problems.
* Simultaneously, hunger and food insecurity affect millions worldwide.

**Solution:**

Share-A-Bite aims to bridge this gap by:

* **Connecting donors:** Individuals with excess food (leftovers, daily meals) can easily donate it.
* **Connecting recipients:** NGOs supporting underprivileged communities or individuals directly in need can access donated food.

**Target Users:**

* **Donors:** Anyone with surplus food (home-cooked meals, restaurant leftovers, etc.).
* **Recipients:**
  + NGOs working with food banks or community kitchens.
  + Individuals facing food insecurity.

**Website Objective:**

* **Reduce food waste:** By facilitating the donation of excess food, preventing it from being discarded.
* **Combat hunger:** Connecting those with surplus food to those in need.
* **Promote a sharing economy:** Fostering a community spirit by encouraging individuals to help each other.

**Additional Considerations:**

* **Logistics:** Implementing a system for safe food handling, pick-up, and delivery.
* **Scalability:** Ensuring the platform can efficiently connect donors and recipients in a growing user base.
* **Partnerships:** Collaborating with NGOs and relevant organizations to reach those most in need.

**Addressing Challenges:**

* **Food safety:** Implementing clear guidelines and procedures for proper food handling and storage.
* **Recipient verification:** Establishing a system to ensure food reaches legitimate recipients.

**Overall Impact:**

Share-A-Bite has the potential to:

* **Minimize environmental impact** by reducing food waste.
* **Address food insecurity** by providing meals to those in need.
* **Cultivate a culture of sharing and social responsibility** within the community.

This brief background provides a foundation for your "Share-A-Bite" website. Remember, further details regarding logistics, user verification, and partnerships will be crucial for the website's successful operation.

**Existing System**

The existing system for creating a food donor website with the primary objective of reducing food wastage and providing food to needy individuals, such as those living in poverty, encompasses several key components and processes:

1. **Food Donation Programs and Initiatives:** Various food donation programs and initiatives exist at local, national, and international levels, aiming to collect surplus food from donors and distribute it to those in need. These programs are often operated by non-profit organizations, charities, religious institutions, and community groups.
2. **Donor Outreach and Engagement:** Food donation initiatives rely on outreach efforts to engage potential donors, including individuals, households, businesses, restaurants, grocery stores, and food manufacturers. Outreach strategies may include public awareness campaigns, educational workshops, networking events, and partnerships with local businesses and organizations.
3. **Food Collection and Redistribution:** Once donations are secured, the process of collecting, sorting, and redistributing food begins. This typically involves coordinating logistics such as transportation, storage, and distribution. Food collection points may include donation centers, food banks, soup kitchens, shelters, and community centers.
4. **Food Safety and Handling:** Ensuring the safety and quality of donated food is paramount. Food donation programs adhere to food safety regulations and guidelines to minimize the risk of foodborne illness. Proper handling, storage, and transportation practices are implemented to maintain the integrity of donated food items.
5. **Recipient Identification and Assistance:** Needy individuals and families are identified as recipients of donated food through various channels, including social service agencies, community organizations, schools, and religious institutions. Recipients may receive food assistance through meal programs, food pantries, food distribution events, or direct delivery services.
6. **Partnerships and Collaboration:** Collaboration among stakeholders is essential for the success of food donation initiatives. Partnerships with government agencies, food industry stakeholders, non-profit organizations, and community leaders help leverage resources, expand outreach, and improve the effectiveness of food donation efforts.
7. **Measurement and Evaluation:** Monitoring and evaluating the impact of food donation programs is essential for continuous improvement and accountability. Metrics such as the quantity of food donated, the number of recipients served, and the reduction in food wastage are tracked to assess program effectiveness and inform decision-making.

Overall, the existing system for creating a food donor website to reduce food wastage and provide food to needy individuals involves a coordinated effort among donors, volunteers, recipients, and community partners. A food donor website can serve as a centralized platform to streamline and enhance the efficiency of these processes, facilitating communication, coordination, and collaboration among stakeholders to achieve the shared goal of combating food insecurity and hunger.

**Some websites of Food Donation-**

[**https://www.donateinkind.in/leftover-food-donation**](https://www.donateinkind.in/leftover-food-donation)

[**https://www.nofoodwaste.org/donation-new.html**](https://www.nofoodwaste.org/donation-new.html)

[**https://www.indiafoodbanking.org/about/**](https://www.indiafoodbanking.org/about/)

[**https://robinhoodarmy.com/**](https://robinhoodarmy.com/)

## Share-A-Bite Website System (Basic Outline)

**Goal:** Bridge the gap between food donors and recipients, reducing food waste and aiding the underprivileged.

**Users:**

* **Donors:** Individuals with surplus food (leftovers, daily excess)
* **Recipients:**
  + NGOs supporting underprivileged communities
  + Individuals in need

**Functionalities:**

1. **Registration:**
   * Donors and recipients register with basic information (name, location, contact details).
   * NGOs provide additional verification documents.
2. **Food Listing:**
   * Donors post details about their surplus food:
     + Type of food (vegetarian, non-vegetarian)
     + Quantity
     + Dietary restrictions (if any)
     + Pick-up window (timeframe for collection)
     + Optional: Picture of the food
3. **Food Discovery:**
   * Recipients browse through listed food based on:
     + Location
     + Dietary preferences
     + Pick-up time feasibility
4. **Communication & Coordination:**
   * Recipients express interest in specific food listings.
   * Secure chat window allows direct communication between donor and recipient to arrange pick-up.
   * System can facilitate feedback mechanism for both parties.
5. **Additional Features (Optional):**
   * Real-time notifications for new food listings.
   * Option for pre-scheduled food donations (e.g., recurring leftovers from restaurants).
   * Integration with volunteer networks for pick-up and delivery assistance (connecting donors with limited mobility to potential recipients).

**Existing Systems for Reference:**

* **Food Donation Apps:**
  + Waste No Food: <https://wastenofood.org/faq/>
  + Feeding America: <https://www.feedingamerica.org/> (website has a donation portal)
* **Food Sharing Platforms:**
  + <https://www.freecycle.org/> (not specifically for food, but allows food donation listings)

**Note:**

* This is a simplified outline. Real-world implementation would require additional functionalities like:
  + User verification and safety measures.
  + Food safety guidelines and disclaimers.
  + Content moderation to prevent misuse.
* Consider partnering with local NGOs or food banks for wider reach and support.

**Further Development:**

* Explore integrating with mapping services for location-based search and pick-up coordination.
* Partnering with delivery services (if feasible) for broader reach to recipients with limited mobility.

This basic structure provides a starting point for your "Share-A-Bite" website. Remember, ensuring food safety and user security should be prioritized during development.

**Problem Statement**

In today's world, food wastage is a pressing issue, with a significant amount of surplus food being discarded while many people go hungry. Despite efforts to address this problem, there remains a gap between those with excess food and those in need. Additionally, there is a lack of efficient platforms to facilitate the donation and distribution of surplus food to those who require it

The absence of a centralized system exacerbates the challenge of food wastage and hampers efforts to assist the needy. Existing methods for food donation often lack accessibility and transparency, leading to inefficiencies in matching donors with recipients.

To address these issues, there is a critical need for a user-friendly online platform that serves as a bridge between food donors and recipients. This platform should enable individuals, organizations, and businesses to easily donate surplus food, whether it be from daily meals or events, and provide a mechanism for those in need to access this food conveniently.

Therefore, the objective of the proposed website, 'Share-A-Bite', is to create a solution that facilitates the seamless donation and distribution of leftover food, thereby reducing food wastage and helping alleviate hunger in communities. The platform aims to cater to both donors, who have surplus food to donate, and recipients, including NGOs, groups of people, and individuals in need, by providing a transparent and accessible means of connecting them.

There's a significant amount of food waste while many people struggle with hunger. Existing solutions provide to donate rupee and they are not robust now. connect donors with organizations, not directly to individuals. We need a system to bridge the gap and allow everyday people to share excess food.

**Objectives**

By harnessing the power of technology and community engagement, we aim to create a more efficient and equitable food distribution system that benefits both society and the environment.

The objectives of our project are:

1. **“Share-a-bite”** is to significantly reduce food wastage by facilitating the donation of surplus food from businesses, events, and individuals.
2. Our project provides a bridge to the gap between food donors and needy people (or hungry people)
3. To provide nutritious meals to individuals and communities in need.
4. Streamline the process of food donation and redistribution.
5. Foster collaboration between food donors and recipients.
6. To raise awareness about food insecurity and the importance of food donation.
7. Promote sustainability by repurposing surplus food resources.
8. Empower commulnities to address hunger and food insecurity collectively.

**System features**

1. **User Registration and Profiles:**
   * Allow users to register as donors and recipients.
   * Create user profiles with relevant information such as contact details, location, and preferences.
2. **Food Donation Listings:**
   * Enable donors to list surplus food donations with details including type, quantity, expiration date, and location.
   * Provide options for donors to schedule pick-up or delivery times.
3. **Recipient Search and Requests:**
   * Allow recipients to search for available food donations based on location, food type, and quantity.
   * Enable recipients to submit requests for specific food items based on their needs.

* **Donor:**
  + **Post food listing:**
    - Description of food (type, quantity, dietary restrictions).
    - Pictures (optional).
    - Pick-up location and time window.
    - Option to specify recipient type (individual, NGO).
  + **Manage listings:**
    - Edit or cancel postings before pick-up.
  + **Review system (optional):** Rate recipients based on experience.
* **Recipient:**
  + **Browse food listings:**
    - Search by location, dietary preference, and pick-up time.
    - Filter based on recipient type (individual or NGO).
  + **Request food:**
    - Indicate pick-up capability.
    - Option to leave a message for the donor.
  + **Review system (optional):** Rate donors based on experience.

**Additional Features:**

* **Messaging system:** Allow basic communication between donors and recipients within the platform for coordinating pick-up.
* **Verification system:** Implement optional verification for both donors (ID, food safety certificates for businesses) and recipients (if needed).
* **Real-time map:** Display food listings and pick-up locations on a map for easier visualization.
* **Notifications:** Alert users about new listings, requested pick-ups, and messages.
* **Feedback system:** Allow users to report any issues or provide suggestions for improvement.

**Advanced Features (optional):**

* **Integration with food banks/NGOs:** Partner with local organizations to streamline recipient outreach and food distribution.
* **Donation tracking:** Allow donors to track the impact of their contributions (e.g., number of people fed).
* **Volunteer system:** Enable volunteers to assist with pick-up and delivery for recipients facing mobility limitations.

**Important Considerations:**

* **Food safety:** Emphasize the importance of proper food handling and storage in website guidelines.
* **Liability:** Clearly outline user responsibilities and limitations regarding food quality and safety.
* **Waste reduction:** Encourage portion control and mindful food preparation to minimize leftovers in the first place.

**Proposed System**

Share-A-Bite is a user-friendly online platform designed to connect food donors with recipients, aiming to reduce food wastage and alleviate hunger. The system caters to two primary user roles: donors and recipients.

**1. Donors:**

* Donors register on the platform and provide necessary details such as contact information and location.
* Donors can list surplus food items available for donation, specifying the type, quantity, and expiry date (if applicable).
* They have the option to schedule pickups or drop-offs based on their convenience.
* Donors can also choose to make recurring donations or one-time contributions.
* The system ensures that donated food meets safety and hygiene standards through guidelines and verification processes.

**2. Recipients:**

* Recipients include NGOs, individuals, or groups in need of food assistance.
* Recipients can search for available food donations based on location, type of food, and availability.
* They can request specific items or choose from the available listings.
* Recipients have the flexibility to schedule pickups or deliveries according to their requirements.
* The platform ensures transparency by displaying information about donors and their donated items.

**Key Features:**

1. **User Authentication and Profiles:** Secure registration and login for both donors and recipients with personalized profiles.
2. **Food Listings:** Donors can list available food items with details, including type, quantity, and expiry date.
3. **Search and Filter:** Recipients can search for food donations based on location, type, and availability.
4. **Scheduling:** Both donors and recipients can schedule pickups or deliveries at mutually convenient times.
5. **Communication:** In-built messaging system for communication between donors and recipients regarding donations and logistics.
6. **Verification and Safety:** Ensuring food safety and hygiene standards through verification processes and guidelines.
7. **Feedback and Reviews:** Recipients can provide feedback and reviews about donors and their donations, promoting trust and accountability.
8. **Mobile Accessibility:** Responsive design for easy access and usability on mobile devices, ensuring convenience for users on the go.

**Overall, Share-A-Bite aims to foster a community-driven approach toward reducing food wastage and addressing food insecurity by facilitating seamless food donations and distributions between donors and recipients.**

**Tools /Platforms**

* Front end: HTML 5, CSS, JavaScript.
* Back end: Python, MYSQL.
* Text- Editor: Visual Studio code
* Framework &Server: Django

**HTML-**

**The full form for HTML is for hypertext mark-up language.** HTML is used to describe the structure of web pages. it is a standard mark-up language used for creating web application

**PYTHON -**

Python is a popular programming language. it was created by Guido and Rossum and released in 1991. Django is a high-level Python web framework that enables rapid development of secure maintainable websites it is used for:

* web development (server side),
* software development,
* system scripting

**CSS-**

**CSS stands for cascading style sheet it is a style sheet.** language used to save the HTML element that will be displayed in the browsers as a web page.

without using CSS, the website, which has been created by HTML,

will be dull. CSS gives the outer cover on any HTML elements. If you consider HTML as a skeleton of the web page then the CSS will be the skin of the skeleton.

**Hardware requirement**

**Laptop or PC-** i3 Processor system

4 GB RAM or Higher

100 GB ROM Or Higher.

**Software requirement**

* Window 10 pro -

operating system used to house all the applications and tools.

* Microsoft Office 2016

Tools of writing and editing document.

* PyCharm is used as a code editor.
* Django as a framework and server.
* EdrawMax tools to draw diagram**.**

**Conclusion**

Developing this website ‘Share-A-website’ dedicated to reducing food wastage and providing food to needy individuals, especially those in poverty, is a critical step towards creating a more sustainable and equitable food system. By leveraging technology and community engagement, this platform has the potential to streamline surplus food redistribution, optimize resource allocation, and foster collaboration among stakeholders.

‘Share-A-Bite’ serves as a crucial bridge between food donors and recipients, embodying a commitment to combating food waste and addressing hunger. By facilitating the seamless transfer of surplus food to those in need, the platform fosters a sense of community and compassion. Together, donors and recipients play a vital role in shaping a more sustainable and equitable future, one meal at a time

**"Join us at Share a Bite, where every meal shared is a step towards reducing food wastage and nourishing communities in need. Together, we can make a difference, one bite at a time."**

**Future Scope of Project-**

1. Expansion of Geographic Reach:
2. Enhanced Mobile Accessibility:
3. Integration of Advanced Technologies:
4. Diversification of Food Donations:
5. Partnerships with Food Industry Stakeholders:
6. Community Empowerment and Education:
7. Research and Innovation:

**Bibliography/reference**

**Web References -**