

Synopsis

SustainLink

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Description:

SustainLink is a visionary project designed to combat waste and enhance community welfare by connecting individuals in need with stores holding near-expiry perishable products. This inclusive platform goes beyond food items, encompassing a wide range of perishable goods. By efficiently tracking expiration dates and fostering real-time connections, SustainLink aims to create a collaborative ecosystem where surplus essentials find purpose, benefitting both businesses and communities. Products can be either donated or bought as per needs of the supplier and buyer.

When fresh goods arrive, the app records their expiration dates. As soon as food is close to the expiry, the app alerts local charities who can then pick it up for reuse. This simple process helps stores manage inventory, prevents waste, and supports the community.

Goals:

The SustainLink project aligns with several Sustainable Development Goals (SDGs), reflecting its commitment to addressing global challenges and contributing to a more sustainable and equitable future. Here are the SDGs that the SustainLink project supports:

- **SDG 1: No Poverty** - India has implemented various poverty alleviation programs, such as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and Direct Benefit Transfer (DBT) schemes, to reduce poverty and enhance social protection.

- **SDG 2: Zero Hunger** – The project directly contributes to SDG 2 by facilitating the redistribution of surplus essentials, including food items, to individuals facing food insecurity.
- **SDG 12: Responsible Consumption and Production** - Project aligns closely with SDG 12 by promoting responsible consumption and reducing waste, specifically focusing on a wide range of perishable goods.
- **SDG 17: Partnerships for the Goals** - SustainLink fosters collaborations between individuals, local stores, and communities, aligning with SDG 17. The platform encourages partnerships that contribute to shared sustainability goals.

Objectives:

- **Combat Waste:** The primary objective of SustainLink is to address and combat waste, particularly the wastage of near-expiry perishable products. By connecting individuals in need with stores holding such products, the project aims to prevent unnecessary disposal and contribute to reducing overall waste.
- **Efficient Expiration Date Tracking:** The project aims to create an efficient system for tracking expiration dates of perishable goods. This involves the timely recording of expiration dates when fresh goods arrive and sending alerts to local charities as products approach their expiry, enabling swift action to prevent waste.
- **Inventory Management for Stores:** The project benefits businesses by helping them manage their inventory effectively. By providing timely alerts and facilitating the redistribution of surplus goods, stores can optimize their stock levels, reduce waste, and contribute to sustainable business practices.
- **Optimize Resource Utilization:** By facilitating the reuse of near-expiry perishable products, SustainLink contributes to the optimization of resource utilization. This involves ensuring that resources are utilized to their fullest potential, reducing unnecessary waste and promoting a more sustainable approach to consumption.
- **Real-time Connections:** SustainLink focuses on fostering real-time connections between stores and local charities. This immediacy in communication ensures that surplus goods can be quickly identified, collected, and redistributed, minimizing the time between the availability of surplus items and their utilization.

Existing Systems:

- **ShareFood:** This India-based app allows users to filter near-expiry food by location, price, and category. Users can also see the distance to the store, making it convenient for them to find and rescue food near them. (Similar to your focus on geographic filtering and convenience)

- **Remedico:** This platform uses AI to predict and optimize medicine stocks in healthcare facilities, reducing pharmaceutical waste and improving resource allocation.
- **Give and Take India:** This platform connects users for sharing unwanted items, including non-food perishables, fostering a community-based approach to resource reuse.
- **Feeding India:** This non-profit distributes surplus food from grocery stores, restaurants, and other sources to people in need. They have a network of volunteers and distribution centers across India, demonstrating community-driven food rescue.
- **Waste Wise India:** This non-profit organization works on various waste management initiatives, including food waste reduction. They offer resources and support for businesses and communities.

Limitations of Existing Systems:

- **Limited Scope:** Some projects focus solely on food waste, neglecting other perishable categories. This limits their reach and impact.
- **Lack of Incentives:** Many projects lack mechanisms to motivate businesses and individuals to actively participate in waste reduction. Your "Sustainability Badge" system can address this by promoting responsible practices.
- **Limited User Engagement:** Some platforms lack interactive features, leading to passive user participation. Your focus on user-centric features like filters and creative reuse suggestions can address this.
- **Lack of Technology Integration:** Many projects rely on awareness and community efforts, which are valuable but can lack scalability and efficiency. Utilizing technology can address this gap.

Features:

- **Database:** Database that keeps track of type of product, expiration date, location, price etc.
- **Expiration Date Tracking:** cutting-edge tracking systems to monitor the expiration dates of various perishable products, including but not limited to food items, cosmetics, and household goods. QR- Scanner via app to easily add the food to database / manual input possible as well
- **Real-Time Alert System:** Users receive timely alerts about near-expiry products across diverse categories, ensuring that a wide range of essential items can be efficiently redirected to those who need them.
- **Dynamic Store Connections:** The platform dynamically links individuals seeking affordable perishable products with local stores, creating a mutually beneficial ecosystem.

- **Geolocation and Proximity Based Notifications:** Utilize real-time geolocation data to connect users with near-expiry products from businesses that are closest to their location. This provides a more convenient and timely experience for users seeking discounted or surplus food.
- **User Preference:** Login as supplier or buyer (with verification)
- **Incentives:** Score/reward system for stores and communities exchanging products and preventing waste

Tools Proposed for use:

- [React](#) for front-end development
- [MongoDB](#) for database management
- [Node.js & Express.js](#) for backend development

References:

- <https://www.docsapp.in>
- <https://react.dev>
- <https://bard.google.com>
- <https://foodtank.com>