

ABSTRACT

Local Eco-Friendly Shopping Platform with Geolocation, Real-Time Features, and Sustainability Tracking

The **Local Eco-Friendly Shopping Platform** is a modern web application designed to transform how consumers shop by focusing on sustainability and convenience. The platform connects users with nearby retail stores, enabling them to discover products, compare prices, and make eco-conscious purchasing decisions based on proximity, inventory, and environmental impact.

The platform allows **multiple local retail stores** to register and update their profiles in real-time, showcasing available products, prices, and other essential details. Stores can manage their inventories dynamically, ensuring that consumers always have up-to-date information on product availability. Users can browse by categories like electronics, groceries, or fashion, or search for specific products. When users search for an item, the platform displays stores nearby, sorted by distance using **geolocation**. The system also includes filters for price comparisons, stock availability, and customer reviews to help users make informed decisions.

A standout feature is the **real-time inventory system** that ensures users know exactly what products are in stock at nearby stores before visiting. This reduces wasted trips and increases shopping efficiency, making it easier for users to find what they need locally. In addition to convenience, the platform also emphasizes eco-friendliness with its **eco-shopping metrics**. It tracks users' environmental contributions by calculating **carbon footprint savings** when shopping locally instead of opting for shipped products. It also calculates **miles saved** from shipping and rewards eco-conscious users through a **Green Shopper Badge** and a **green points system**. Users earn points for making sustainable choices, which can be redeemed for discounts, promotions, or even charitable contributions, motivating them to keep making eco-friendly decisions.

The platform also supports community-driven interaction with **user reviews and store ratings**, allowing customers to share their experiences and help others make informed decisions. **Notifications** alert users to product restocks, discounts, and new store registrations, keeping them up to date on the latest offers.

For added convenience, the platform includes a **map view** to show the location of nearby stores. Users can filter stores by distance, ratings, and product categories, and it even encourages **eco-friendly travel** by suggesting stores within walking or biking distance. The app also displays nearby public transportation options, such as bus stops and bike-sharing facilities, promoting a greener way to shop.

With a responsive design powered by **shadcn/ui components**, the platform ensures a smooth, user-friendly experience across all devices, providing both mobile and web users with easy access to its features. A **chat interface** further improves user experience by enabling direct communication between customers and stores.

Ultimately, the **Local Eco-Friendly Shopping Platform** offers a comprehensive solution that supports local businesses, reduces the environmental impact of shopping, and empowers users to make more sustainable choices, creating a stronger sense of community and eco-consciousness.

Tech stack : Frontend : React.js, tailwind
Backend : Node.js, Express.js
Database : MongoDB.
Authentication : JWT, bcrypt.
API Documentation : Postman.
Realtime Communication : Socket.io .
Deployment : Netlify, Vercel .

MindMap :



Timeline:

