

ECOFINDS – SUSTAINABLE SECOND-HAND MARKETPLACE

EXECUTIVE SUMMARY

EcoFinds addresses the growing problem of consumer waste and fast fashion by providing a user-friendly, reliable second-hand marketplace. This platform aims to empower sustainable consumption by facilitating the buying and selling of pre-owned goods, fostering a circular economy, and building community trust. The prototype showcases core functionalities including user authentication, product management, browsing, search, and a simplified cart system.

PROBLEM STATEMENT

- Increasing consumer waste and the environmental impact of fast fashion.
- Lack of a trustworthy and easily navigable platform for second-hand goods.
- A need to encourage and simplify sustainable consumption habits for a wider audience.

VISION & MISSION

Vision: To become the leading trusted destination for conscious and sustainable shopping by making second-hand the preferred choice.

Mission: To develop an accessible and engaging platform that enables seamless buying and selling of second-hand items, actively promoting the principles of the circular economy and fostering robust community trust.

CORE FEATURES

- **User Authentication & Profile:** Secure user sign-up and personalized profiles.
- **Product Listing Management:** Easy creation, editing, and deletion of product listings.

- **Browsing, Search & Filtering:** Intuitive navigation with category filters and search functionality.
- **Product Detail View:** Comprehensive information on individual products.
- **Cart & Previous Purchases:** Simple cart functionality and a history of past transactions.

USER FLOW

Sign up → Profile Setup → Browse/Search Products → Add/Manage Listings → Add to Cart → Checkout → View Previous Purchases

TECHNICAL APPROACH

- **Frontend:** React.js
- **Backend:** Node.js with Express.js
- **Database:** MongoDB
- **Authentication:** JWT

DATA STRUCTURES

- **Users:** Hash maps for efficient retrieval.
- **Products:** Indexed category trees for optimized searching and filtering.
- **Cart & Purchase History:** Linked records for maintaining user transaction integrity.

SUSTAINABILITY & IMPACT

- Directly contributes to waste reduction by promoting reuse.
- Encourages a shift towards more responsible consumption patterns.
- Increases accessibility to goods through affordable pre-owned options.

FUTURE ROADMAP

- AI-powered personalized recommendations.

- Integration of a secure payment gateway and delivery tracking.
- Implementation of a robust ratings and reviews system to build trust.
- Gamification elements to incentivize sustainable behavior.

CONCLUSION

EcoFinds is poised to play a significant role in promoting sustainability and fostering a trusted community marketplace for second-hand goods, making conscious consumption more accessible and appealing.