Loyalty & Sustainability-Driven Reward System

# 1. Introduction

This document outlines the design, functionality, and implementation of a loyalty and sustainability-driven reward system. The platform encourages eco-conscious behavior and strengthens customer retention using a structured points-based reward model.

# 2. Objective

The system incentivizes customer actions with rewards to promote sustainable shopping habits:

* Shopping: Earn points for purchases.
* Recycling: Earn extra points by recycling used products.
* Returns: Lose points to discourage unnecessary returns.

# 3. Tech Stack

• Frontend Framework: React.js

• Styling: Tailwind CSS

• State Management: React Context / Redux (if needed)

• Backend & Database: Firebase (Firestore, Firebase Auth, Cloud Functions)

• Hosting: Firebase Hosting / Vercel / Netlify

# 4. Core Features

* User Authentication and Onboarding
* Reward Points Engine
* Shopping Flow with Points Accrual
* Recycling Flow with Bonus Points
* Returns Management with Points Deduction
* Tier System (Bronze, Silver, Gold)
* Partner Points Transfer (e.g., airlines, hotels)
* Points Expiry and Minimum Conversion Logic
* Data Visualization Dashboard
* Mobile-Responsive Design

# 5. Points System Logic

• Purchasing: Earn 5% of product MRP in points

• Recycling: Earn 50% of current product value in points

• Returns: Deduct 1.5× points earned originally

• Tier Boosts: Silver/Gold tiers get higher earnings or perks

• Transfer Rules: Specific conversion rates with partner brands

# 6. Tier-Based Model

• Bronze: Base tier

• Silver: Frequent buyers, better point conversion that gives 1.25x more points .

• Gold: VIP tier, best point conversion that gives 1.75x more points .

# 7. Sustainability & Profit Protection

• Points Expire in 12–24 months

• Minimum Points for Transfer: 1,000

• Partner Subsidies: Pre-agreed rates for point redemptions

• Seasonal Promotions: 1:1 conversion during events only(Terms and Conditions apply)

# 8. Business Benefits

* Improves Customer Retention
* Encourages Eco-Friendly Behavior
* Reduces Return-Related Losses
* Increases Basket Sizes
* Enables Cross-Marketing with Partners
* Collects Useful Customer Behavior Data

# 9. Future Enhancements

• Backend Integration with Real-Time Sync (Firebase Functions & Firestore)

• Admin Panel for Partner Management

• AI-based Purchase Recommendations

• Gamified Reward Experiences

• New Feature: ReStore – A recycled products marketplace

# 10. New Module: Recycled Product Store (ReStore)

A new marketplace section where all recycled products collected are processed and resold. This promotes circular economy and adds value to sustainability efforts.

Key Features:

* Catalog of verified, repurposed products
* Eco-badge indicating recycled percentage
* Purchase via Points or Money
* Recycled Inventory Management
* Vendor Resell Program for Partners

Business Impact: Adds a revenue stream and promotes full-cycle sustainability.