

Scrap Collection & Recycling Management System



About the Company



Sri Lanka faces a severe waste management crisis due to irregular and unorganized scrap collection.

This leads to environmental pollution, inefficiency in collection processes, lack of transparency, and lost economic opportunities.

Objectives

Sri Lanka faces a severe waste management crisis due to irregular and unorganized scrap collection.

This leads to environmental pollution, inefficiency in collection processes, lack of transparency, and lost economic opportunities.

A background image showing three people in a meeting. A woman in a black top is standing and looking at a laptop screen. Two other people are seated at a wooden table, looking at the screen. The scene is indoors with a wooden shelf in the background.

Problem Statement

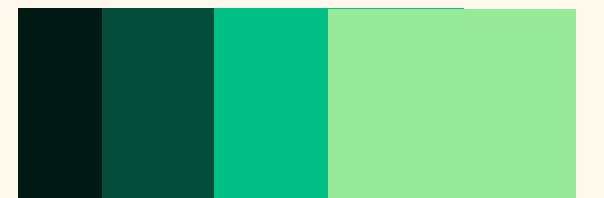
- Environmental pollution
- Inefficiency in waste management
- Lack of transparency
- Loss of economic opportunities
- Employees may manipulate records
- Difficult to track employee working hours and shifts

Aim

To develop a comprehensive, digitalized scrap collection and recycling management system that connects users, drivers, and recycling centres, ensuring efficient and sustainable waste management.

System Overview

Yakadabadu.lk is a web-based platform, technology-driven solutions for structured waste collection, recycling, and resale processes.



Functionalities



Pickup Scheduling Management

Resell Management



Finance Management

Driver & Route Management

User And Staff Management

User & Staff Management

User & Staff Management

Function Requirements

- Attendance Tracking
- Staff information management
- Scheduling employee
- Performance evolution
- User Access Control

- Handles user **registration, authentication, and role-based access.**
- Supports **admins, customers, and drivers** with different levels of system access.
- Ensures **secure user data management.**
- Facilitates staff management, including **adding, updating, and removing** staff.
- Allows admins to **monitor and manage** staff activities.

Pickup Scheduling Management

Pickup Scheduling Management

Function Requirements

- Schedule waste pickups via the platform
- Real-time Optimized scheduling for drivers
- tracking and updates on collection requests

- Allows users to **schedule waste pickups** via the platform.
- Provides **real-time tracking and updates** on collection requests.
- Ensures **optimized scheduling** for drivers.

Driver & Route Management

Driver & Route Management

Function Requirements

- Pickup Request Management
- Route Optimization & Navigation
- PDF Trip Detail Generation
- Pickup Status Updates
- Leave & Availability Handling

- Manages driver **assignments** and **notifications** for pickup requests.
- Provides **optimized routes** and **real-time navigation** to save time and fuel.
- **Automates** traffic-based rerouting to avoid delays.
- Facilitates status **updates** for completed or missed pickups, with reasons.

Resell Management

Resell Management

Function Requirements

- List and purchase second-hand materials
- Marketplace for promoting waste reduction
- Pricing mechanism based on demand

- Enables users to **list and purchase second-hand materials**.
- Facilitates a **resale marketplace** to promote waste reduction.
- Supports **pricing mechanisms** for items based on demand.

Finance Management

Finance Management

Function Requirements

- Payment processing for waste collection services
- Invoice generation and transaction tracking
- Financial reporting and analytics

- Handles user **registration, authentication, and role-based access.**
- Supports **admins, customers, and drivers** with different levels of system access.
- Ensures **secure user data management.**



Tools and Technologies

- **MERN-stack**-MERN is free and open-source JavaScript stack for build dynamic websites
- **GITHUB**-Cloud based version Controller and used to collaborate codes
- **Visual Studio Code**-Powerful and simple IDE for Work with MERN-stack
- **Google AI Studio**-Used to develop Report generation

Our Team Members



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Conclusion

- **Revolutionizing waste management in Sri Lanka.**
- **Creating a structured, efficient, and sustainable waste management system.**
- **Promoting responsible recycling.**
- **Empowering users.**
- **Reducing environmental harm.**

We're Done.



Questions?



Thank you!