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**Solid Waste Management System**  
SRS Document

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# 1 Introduction

## 1.1 Purpose

The purpose of this Software Requirements Specification(SRS) document is to provide a detailed description of the functionalities of the **Solid Waste Management System**. This document will cover each of the system's intended features. The document will also cover hardware, software, and various other technical dependencies.

## 1.2 Intended Audience

This document is intended for all the individuals participating in and/or supervising the **Solid Waste Management System**. This document provides a brief overview of each aspect of the project as a whole.

## 1.3 Project Scope

The projects draws its inspiration from the motive to promote and enhance the recycling of dry waste and gain the profits by selling scrap and getting credits to buy the recycled products. Our software is composed of two main components: a web-app for users to buy products online and track their profiles, and an app for the *kabadiwalas* to enable them with technology that will ease their work of collection of kabad from various households from various localities.

## 2 Overall Description

### 2.1 Product Perspective

**Solid Waste Management System** is a new product intended for use on the Android platform and web browsers. As discussed earlier, the project will have two platforms. An android app for the kabadiwalas to enable them with the means to quickly reach households where solid waste is ready for disposal. The other will be a web-app which will enable the customers to buy products and keep track of their activity and profiles.

### 2.2 Product Features

The core features of the projects are described below.

- **Credit-Based System**

All the customers who give away the solid waste would be given credits which they could redeem online. These credits would also depend upon what kind of waste and how much amount of waste is given away. Items can be purchased through credits points, money or a combination of both.

- **Sale of Recycled Items**

The e-commerce website would have a range of recycled goods like decorative pieces, sofas, leather items, fiber bags etc. Customers can choose what they like from this site.

- **DIY videos on Resuing**

This section will comprise of do-it-yourself videos on how to reuse various solid waste lying around the household to make something creative or useful. These videos can include guides on how to make recycled paper greeting cards, clocks, decorative items etc. This is to incentivize the people to inculcate the habit of **reusing** the waste. It would also help the people to gain a new skill.

- **Waste Pick-up**

The customers can request for pick-up of the dry waste at their own convenience. This will enable the customers to dispose off their wastes quicker in comparison to the conventional methods.

- **Special app for Kabadiwalas**

We will provide the kabadiwalas with a special app that will be easy to use. This app will notify when there is a customer who wants to dispose off his waste. Such technology will enable to work efficiently and go to only those places where there is a necessity.

### 2.3 User Classes and Characteristics

The **Solid Waste Management System** is supposed to address the issue of solid waste management pan-India. We believe that the project will belong to the following classes<sup>1</sup>:

- **Tier 1 (X)**

Dry Waste Management is a burning issue in big, metro cities. The sole cause of this is because the population in a metro city is comparatively high. Waste generated in such cities are higher from both commercial and non-commercial sources.

- **Tier 2 (Y)**

The waste generated is comparatively lesser than Tier 1 (X) cities. This becomes the second class of cities. The success of project will depend upon the impact created in the Tier 1 cities.

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<sup>1</sup>**Classification of Cities** by Government of India, Ministry of Finance, Department of Expenditure  
Memorandum No.2/5/2014-E.II(B)

- **Tier 3 (Z)**

These cities will be at the least focus since there will not be much business opportunity in the initial phase of the project. However, on a long term, the success in these cities will, again, depend upon the success of the idea in the higher tier cities.

These classification are not meant to separate public into different groups. However, this will be the flow in which the project will be made accessible to the public (from Tier 1 to Tier 3).

It is crucial that each of these tiers be fully supported in the final product so as to maximize the overall value of the product. It is also important that the application be as user-friendly as possible, otherwise it will lack the impact which the product desires to create. Most importantly, the application must be reliable. Regardless of the situation, the application must accurately perform the functionality that were mentioned in the above section.

## **2.4 Operating Environment**

The main component of the project is the software application, which will be limited to the android platform-based app and web browsers. The application is not resource- or graphics-intensive, so there are no practical hardware constraints. The app(android and web app) will rely on several functionality.

## **2.5 Design and Implementation Constraints**

The primary design constraint is the mobile platform and the browser platform. Since the application is essentially designated for mobile handsets, limited screen size and resolution will be a major design consideration. Creating a user interface which is both effective and easily navigable will pose a difficult challenge. Since the project involves collection of actual waste, e-commerce platform to sell products on a large scale, each feature must be designed and implemented with efficiency in mind.

## **2.6 Assumption and dependencies**

- The kabadiwala should have access to smartphone and have a basic prior experience in using it.
- We assume that the industries will be in favor of providing us the recycled goods. However, this will only be confirmed after talks with the industries have been established.