**Salesforce Implementation Project**

**Title:** Smart City Waste & Recycling Management System  
**Domain:** Smart Cities / Municipal Services **Solution Category:** Salesforce CRM + IoT Integration

**Primary Users:** City Officials, Waste Collection Staff, Truck Drivers, and Citizens.

**Problem Statement**

➤ GreenCity Municipal Corporation faces growing challenges in managing urban waste and recycling. Overflowing bins, inefficient truck routing, and limited citizen participation create operational inefficiencies, higher costs, and environmental concerns.

➤ To address this, the corporation requires a **Salesforce-based Waste & Recycling Management Platform** that:

**•** Tracks waste bins, IoT fill-level data, trucks, and routes.

**•** Automates waste pickup assignment to nearest available trucks.

**•** Provides real-time notifications to citizens.

**•** Rewards citizens for recycling participation.

**•** Enables predictive dashboards for sustainable decision-making.

**Phase - 1 : Problem Understanding & Industry Analysis**

**Requirements Analysis**

**System Needs**

• Maintain detailed records of bins, including geographic location and IoT-based fill level data.

**•** Track fleet information: drivers, vehicle capacity, and assigned collection zones.

**•** Ensure pickup requests are generated automatically and avoid duplication for the same bin.

**•** Provide real-time communication to citizens regarding bin collection and reward point updates.

**•** Deliver analytical dashboards to city officials for performance and sustainability insights.

**Key Stakeholders & Their Expectations**

**• Municipal Administrators** → Require visibility into waste collection patterns, recycling rates, and cost savings through dashboards.

**• Truck Operators** → Need efficient job allocation that considers proximity and load capacity.

**• Community Members** → Expect timely waste collection services and transparency in reward programs.

**• Technical Support Team** → Responsible for IoT connectivity, data synchronization, and smooth functioning of recycling records.

**Current vs. Proposed Workflow**

**➤ Existing Approach:** Collection relies heavily on manual reporting, complaint calls, and irregular routing. This leads to inefficiencies, delays, and dissatisfaction among residents.

**➤ Planned Salesforce-Enabled Workflow:**

**•** IoT sensors detect when bins reach capacity.

**•** A pickup request is generated and automatically assigned to the closest available truck.

**•** Citizens are notified of the collection status and updated reward balances.

**•** Dashboards consolidate data for city officials, providing clear operational insights.

**Industry Context & Special Considerations**

**•** Smart city initiatives emphasize sustainability and efficiency in public services.

**•** Recycling adoption improves significantly when linked to gamified reward systems.

**•** IoT technology supports predictive analysis for route optimization and overflow prevention.

**Technology & Marketplace Exploration**

**• Mapping and Route Tools →** GIS integration to streamline driver assignments.

**• IoT Middleware Solutions →** Connect bin-level sensors directly with Salesforce records.

**• Gamification / Rewards Apps →** Enhance citizen engagement through redeemable points.

**Phase 2: Org Setup & Configuration**