

## **Phase 3: Data Modeling & Relationships – Replastix Innovation**

### **Standard & Custom Objects**

Salesforce provides standard objects like Accounts, Contacts, Opportunities, and Cases. In the Replastix Innovation project, we create custom objects tailored to our business process, such as: - Plastic Waste – Tracks types, weight, source, and contamination level of collected waste. - Recycled Product – Represents finished products like benches, bins, or boards with material composition and durability details. - Orders – Manages orders for recycled products from municipalities or partners. - Restock Request – Captures inventory replenishment requests when stock is low.

### **Fields**

Fields define the data stored in objects. Each object has multiple fields of various types: - Text – e.g., Waste Source. - Number – e.g., Weight in kilograms. - Picklist – e.g., Type of Plastic (PET, HDPE, LDPE). - Lookup – Links to another object, e.g., Waste linked to Recycling Center. - Formula – Automatically calculates values, e.g., Total Weight. - Auto Number – Unique ID for each record. - Currency – Cost or value-related fields for products.

### **Record Types**

Record types allow different business processes and layouts for the same object. For example: - Plastic Waste may have Industrial and Household record types with different required fields and layouts.

### **Page Layouts**

Page layouts control the organization of fields, sections, and related lists on a record page. For Replastix: - Plastic Waste layout includes Waste ID, Type, Weight, Source, Contamination Level, Related Orders, and Recycling Center. - Recycled Product layout includes Batch Number, Material Composition, Durability, and Associated Orders.

### **Compact Layouts**

Compact layouts display key fields in the record highlights panel, helping users quickly see important information. - Example: Waste ID, Type, Weight, and Status in Plastic Waste records.

### **Schema Builder**

Schema Builder provides a visual representation of objects and their relationships. It helps in designing and understanding the data model. - Example: Plastic Waste → Recycled Product → Orders → Customers, showing how data flows across the system.

### **Lookup vs Master-Detail vs Hierarchical Relationships**

- Lookup: Creates a simple link between objects (e.g., Recycled Product linked to Plastic Waste).
- Master-Detail: Establishes parent-child relationships where child records inherit owner and sharing from parent (e.g., Orders → Recycled Products).
- Hierarchical: Special relationship for User object, showing organizational hierarchy (Manager → Employee).

## **Junction Objects**

Used to model many-to-many relationships. - Example: Orders connect Customers and Recycled Products through a junction object to track multiple products in a single order.

## **External Objects**

External objects allow Salesforce to access data stored outside Salesforce using Salesforce Connect, enabling seamless integration with third-party inventory systems or external databases.

## **Result of Phase 3**

The Replastix CRM has a robust data model with properly defined objects, fields, record types, layouts, and relationships. This structure supports workflow automation, reporting, and integrations effectively.