

# Phase:3 Data Modeling & Relationships

## Custom Objects for RePlastix Innovations

Custom objects are designed to store **business-specific data** that is not captured by Salesforce standard objects. Each custom object represents a real-world entity in the organization.

### 1. Plastic Waste (Plastic\_Waste\_\_c)

#### Purpose:

- To track and manage all plastic waste collected from various sources.
- Helps monitor types, quantity, contamination, and origin of plastic.

#### Key Fields:

Field Name	Type	Description
Waste ID	Auto Number	Unique identifier for each waste record
Type of Plastic	Picklist	PET, HDPE, LDPE, PVC, PP, PS, Others
Weight (kg)	Number	Weight of collected plastic
Source	Lookup (Account/Contact)	Who supplied the waste
Contamination Level	Picklist	Low, Medium, High
Collection Date	Date	When the waste was collected
Recycling Center	Lookup (Recycling_Center__c)	Assigned center to process this waste

#### Use Cases:

- Track total plastic collected for reporting.
- Identify contamination trends.
- Allocate waste to recycling centers efficiently.

#### Relationships:

- Lookup → Recycling Center
- Lookup → Account/Contact (Source)

Welcome to Salesforce: Reset y...Recently Viewed | Customers |Plastic Waste | SalesforceRePlastix CRM project steps

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11 Items, Sorted by Field Label

Quick Find

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Collection Date	Collection_Date__c	Date	
Contamination Level	Contamination_Level__c	Picklist	
Created By	CreatedById	Lookup(User)	
Last Modified By	LastModifiedById	Lookup(User)	
Owner	OwnerId	Lookup(User,Group)	✓
Recycling Center	Recycling_Center__c	Lookup(Recycling Center)	✓
Source	Source__c	Picklist	
Status	Status__c	Picklist	
Type	Type__c	Picklist	
Waste ID	Name	Text(80)	✓
Weight (kg)	Weight_kg__c	Number(1, 2)	

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Email

Geolocation

Number

Percent

Phone

Picklist

Picklist (Multi-Select)

Text

Text Area

Text Area (Long)

Text Area (Rich)

Text (Encrypted)

Allows users to enter an email address, which is validated to ensure proper format. If this field is specified for a contact or lead, users can choose the address when clicking Send an Email. Note that custom email addresses cannot be used for mass emails.

Allows users to define locations. Includes latitude and longitude components, and can be used to calculate distance.

Allows users to enter any number. Leading zeros are removed.

Allows users to enter a percentage number, for example, '10' and automatically adds the percent sign to the number.

Allows users to enter any phone number. Automatically formats it as a phone number.

Allows users to select a value from a list you define.

Allows users to select multiple values from a list you define.

Allows users to enter any combination of letters and numbers.

Allows users to enter up to 255 characters on separate lines.

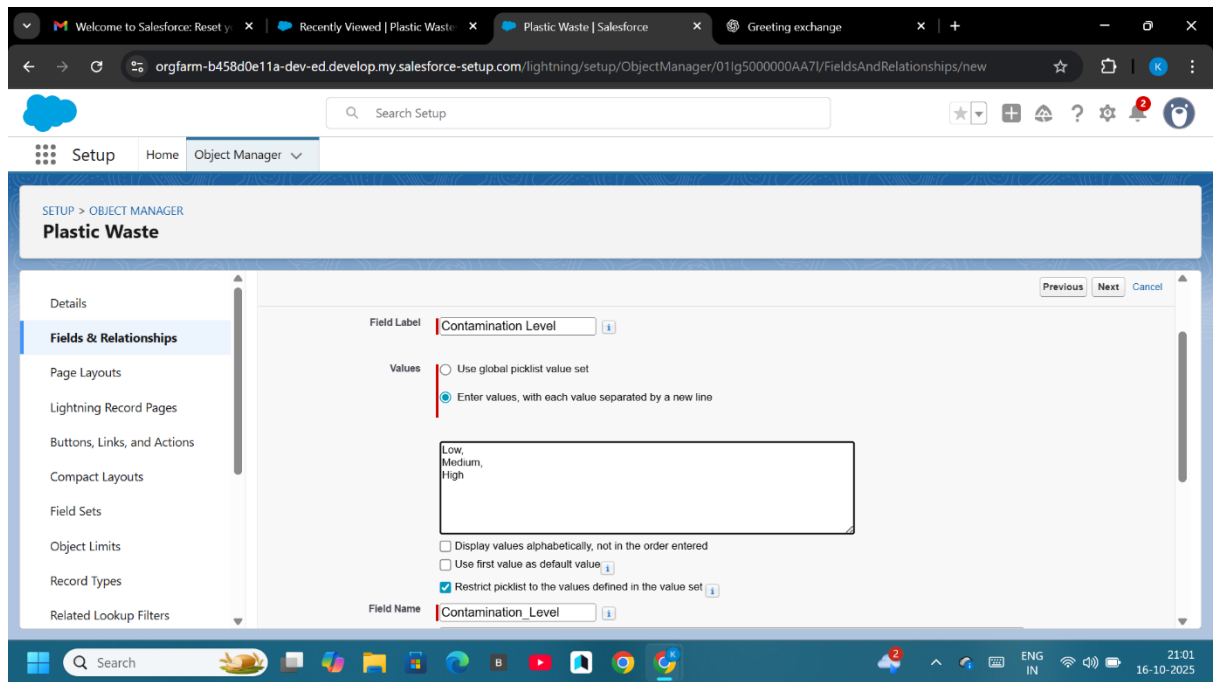
Allows users to enter up to 131,072 characters on separate lines.

Allows users to enter formatted text, add images and links. Up to 131,072 characters on separate lines.

Allows users to enter any combination of letters and numbers and store them in encrypted form.

Allows users to enter a local time. For example, "2:40 PM", "14:40", "14:40:00", and "14:40:50.600" are all valid times for this field.

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## 2. Recycled Product (Recycled\_Product\_\_c)

### Purpose:

- To manage details of products made from recycled plastic.
- Helps in production tracking, inventory management, and sales.

### Key Fields:

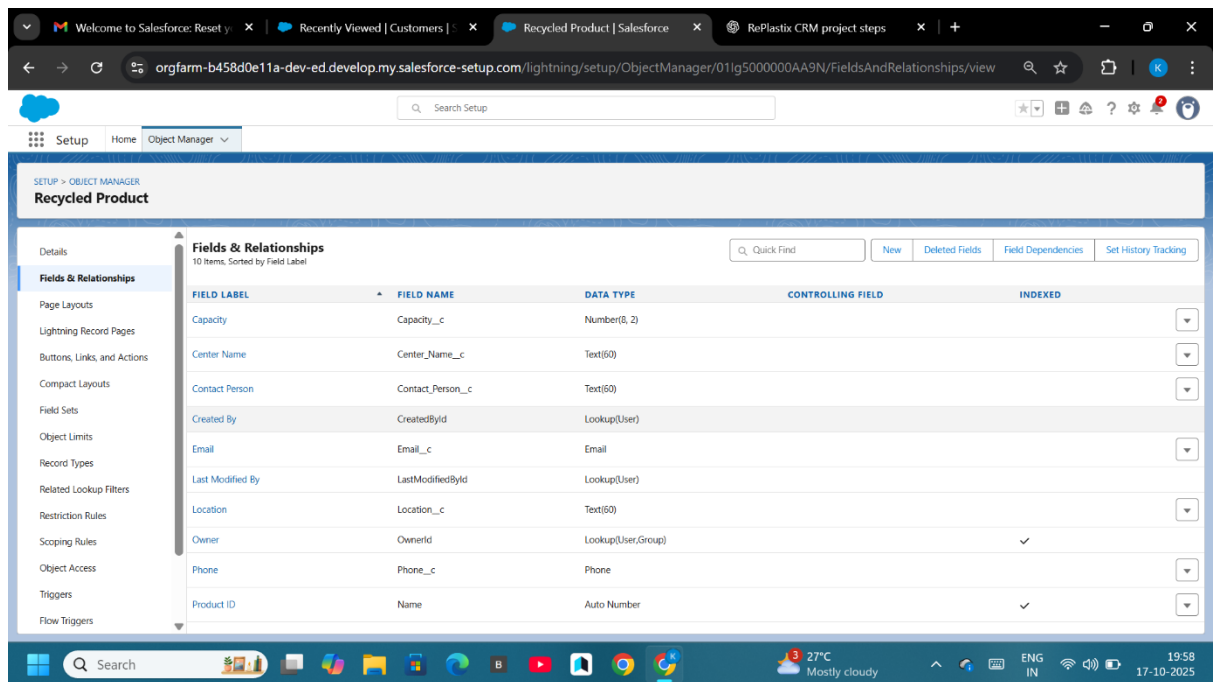
Field Name	Type	Description
Product ID	Auto Number	Unique product identifier
Product Name	Text	Name of the product (e.g., Bench, Board)
Type	Picklist	Bench, Bin, Board, Others
Material Used	Lookup (Plastic_Waste__c)	Links to plastic used
Quantity Produced	Number	Number of units produced
Production Date	Date	Date of production
Product Status	Picklist	In Production, Ready, Distributed

### Use Cases:

- Track which waste batches were used in production.
- Monitor production quantity and product status.
- Facilitate inventory management and order fulfillment.

### Relationships:

- Master-Detail → Plastic Waste (Product cannot exist without waste)



### 3. Recycling Center (Recycling\_Center\_\_c)

#### Purpose:

- To maintain information about recycling plants or centers.
- Enables allocation of waste and tracking of processing capacity.

#### Key Fields:

Field Name	Type	Description
Center ID	Auto Number	Unique identifier for each center
Center Name	Text	Name of the recycling center
Location	Text/Address	Physical address of the center
Capacity (kg)	Number	Maximum plastic weight the center can process
Manager	Lookup (User)	Person responsible for the center
Operational Status	Picklist	Active, Inactive, Under Maintenance

#### Use Cases:

- Assign collected plastic waste to centers.
- Track operational status and capacity utilization.
- Monitor performance of recycling centers.

#### Relationships:

- Lookup → User (Manager)

- Lookup → Plastic Waste (Waste assigned to this center)

#### 4. Order (Order\_\_c)

##### Purpose:

- To manage orders for recycled products from customers.
- Tracks order details, delivery dates, and statuses.

##### Key Fields:

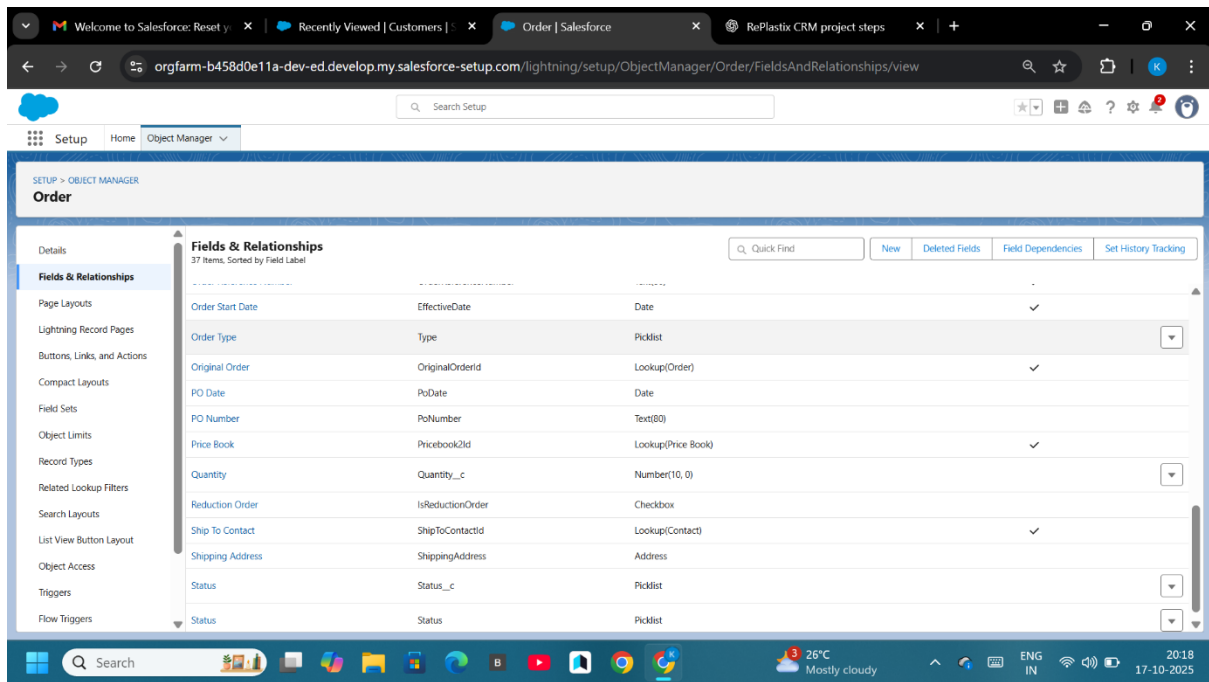
Field Name	Type	Description
Order Number	Auto Number	Unique identifier for the order
Customer Name	Lookup (Account/Contact)	Customer placing the order
Product Ordered	Lookup (Recycled_Product__c)	Product being ordered
Order Quantity	Number	Quantity requested
Order Date	Date	When the order was placed
Delivery Date	Date	Expected delivery date
Order Status	Picklist	Pending, In Progress, Completed, Cancelled

##### Use Cases:

- Track all customer orders and order fulfillment.
- Link orders to recycled products for production planning.
- Generate reports on sales and delivery.

##### Relationships:

- Lookup → Account/Contact (Customer)
- Lookup → Recycled Product



## Customer (Customer\_\_c)

### Purpose:

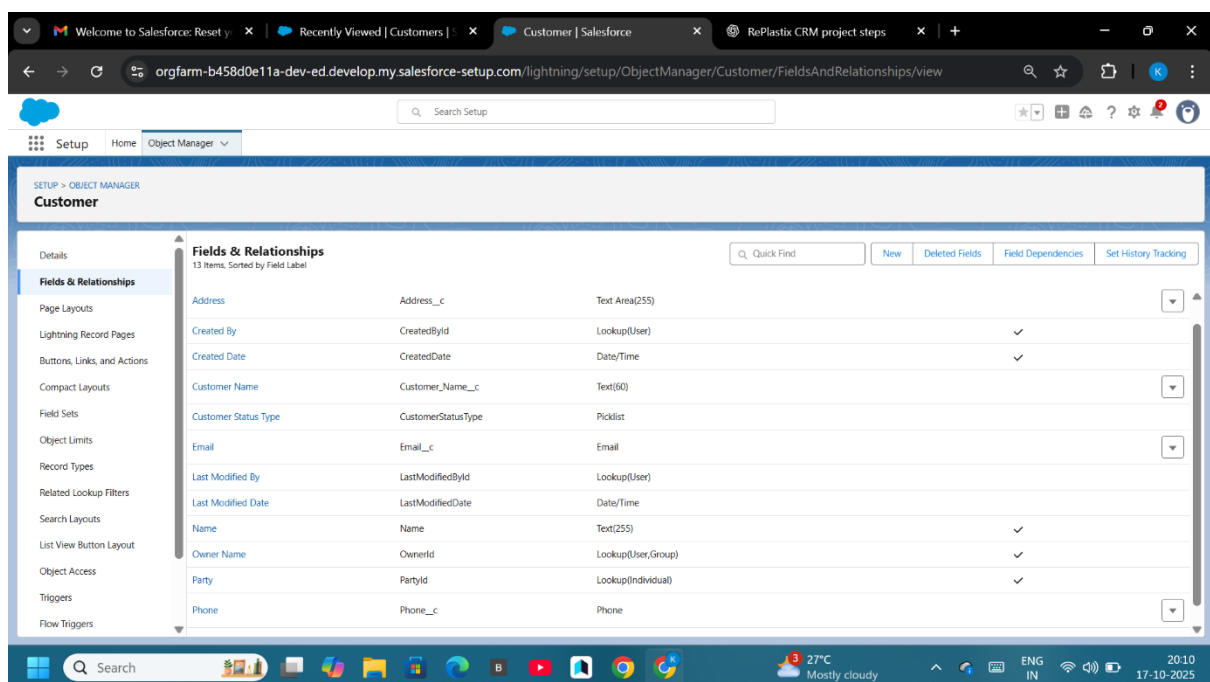
- To manage customer-specific information that may not be fully captured by the standard **Account** or **Contact** objects.
- Centralizes customer data for orders, communication, and reporting.
- Useful if your organization wants **custom attributes** for customers or separate tracking from standard Salesforce Accounts.

Field Name	Type	Description
Customer ID	Auto Number	Unique identifier for each customer
Customer Name	Text	Full name of the customer or organization
Customer Type	Picklist	Individual, Business, NGO, Government
Contact Person	Text	Main contact person for the customer
Email	Email	Email address of the customer
Phone Number	Phone	Contact number
Address	Text/Address	Physical address of the customer
Industry	Picklist	Industry type (e.g., Manufacturing, Retail, Recycling)
Customer Rating	Picklist	Excellent, Good, Average, Poor
Preferred Products	Multi-Select Picklist	Products the customer usually orders

Field Name	Type	Description
Notes	Long Text Area	Additional information or remarks about the customer

## Use Cases

- Centralized Customer Information:**
  - Maintain a single record for each customer with all relevant details.
- Order Management:**
  - Link customer records to Orders (Order\_\_c) for tracking purchases.
- Reporting & Analytics:**
  - Analyze order trends, customer segmentation, and product preferences.
- Communication:**
  - Use email or phone fields for campaigns, updates, or notifications.
- Customer Segmentation:**
  - Use Customer Type, Industry, and Rating to categorize customers for targeted marketing or priority handling.



## 2.Fields

Fields define the **data points captured in each object**. Proper field setup ensures accurate reporting, automation, and user experience.

### Types of Fields:

- Text:** Names, descriptions, addresses.
- Number:** Quantitative values (e.g., weight, quantity).

- **Picklist:** Predefined set of options (e.g., Product Status: Ready, In Production).
- **Checkbox:** True/False values.
- **Date / DateTime:** Track specific dates or timestamps.
- **Formula:** Calculate values dynamically (e.g., Total Weight = Weight1 + Weight2).
- **Lookup / Master-Detail:** Define relationships between objects.
- **Long Text Area:** For notes, descriptions, or comments.

#### Use Cases:

- Track attributes like product type, order quantity, and waste contamination.
- Enable validation rules and automation (e.g., workflows triggered when a field reaches a certain value).

### 3. Record Types

Record Types allow **different business processes, picklist values, and page layouts** within the same object.

#### Purpose:

- Customize user experience based on business needs.
- Support multiple processes within a single object.

#### Use Cases:

- Plastic Waste object can have **Industrial Waste** vs **Household Waste** record types.
- Recycled Products may have record types like **Furniture** vs **Construction Material** to track production workflows differently.

#### Benefits:

- Control picklist values per record type.
- Assign specific page layouts per record type.

### 4. Page Layouts

Page layouts define **how fields, sections, related lists, and buttons appear** on a record page.

#### Purpose:

- Enhance user experience by showing relevant fields only.
- Control which fields are read-only or editable for specific profiles.

#### Use Cases:

- Show operational fields for internal users (e.g., Recycling Center staff) and hide technical fields for sales users.
- Customize layouts per record type (e.g., Household vs Industrial Waste).

### 5. Compact Layouts



Compact layouts define **key fields displayed in the highlights panel** on record pages, especially in Salesforce mobile.

### Purpose:

- Quickly provide essential information to users without scrolling.

### Use Cases:

- On an Order record, display **Order Number, Customer, Status, and Delivery Date** in the highlights panel.
- On Plastic Waste, display **Waste ID, Type, Weight, and Center** for quick reference.

## 6. Schema Builder

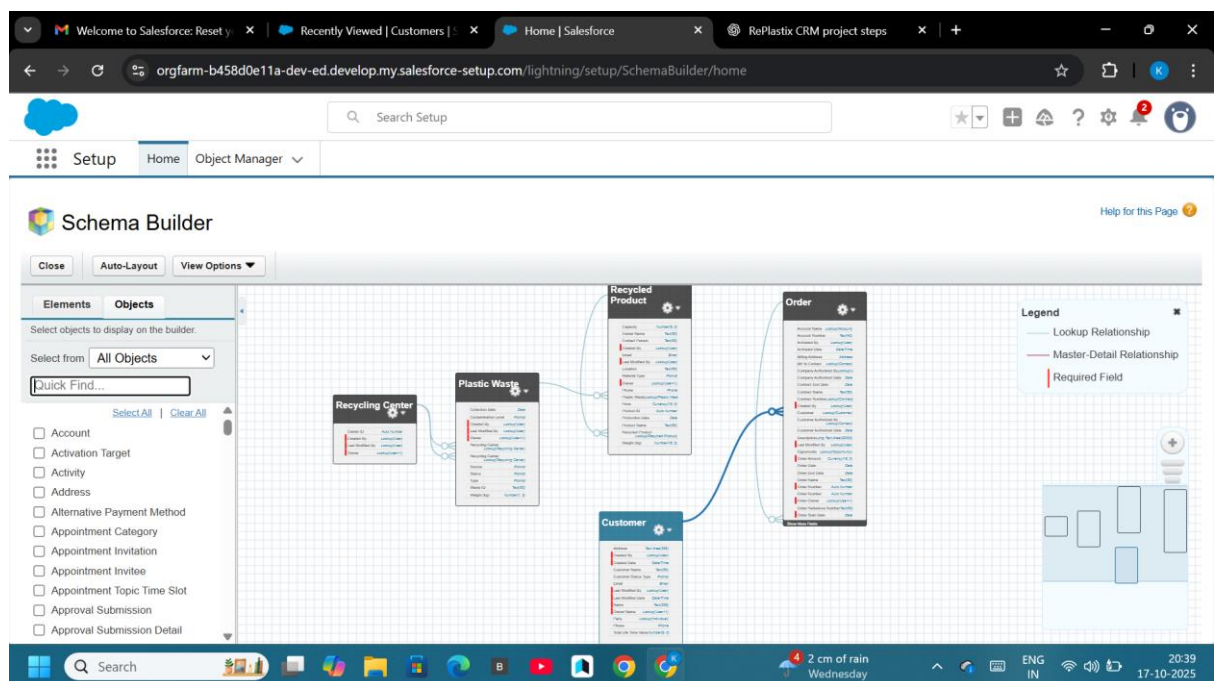
**Schema Builder** is a visual tool to **create, view, and manage objects, fields, and relationships**.

### Purpose:

- Visualize complex relationships in a drag-and-drop interface.
- Easily add fields, lookup relationships, or master-detail relationships.
- Identify dependencies and avoid errors during setup.

### Use Cases:

- View all objects (Plastic Waste, Recycled Products, Orders, Customers) and their relationships.
- Plan data model changes without affecting production.



## 7. Relationships

Relationships define **how objects connect to each other**, enabling data visibility and process automation.

### Types of Relationships:

Type	Purpose	Example
Lookup	Loose connection; records can exist independently	Plastic Waste → Recycling Center
Master-Detail	Strong dependency; child inherits parent's ownership	Recycled Product → Plastic Waste
Hierarchical	Special lookup on User object for reporting structure	User → Manager
Junction Object	Many-to-many relationships between objects	Orders ↔ Recycled Products
External Object	Access data stored outside Salesforce	ERP inventory → Recycled Product

### Use Cases:

- Enable sharing rules and security via roles and OWD.
- Link orders to products, products to waste, and customers to orders.

## 8. Junction Objects

### Purpose:

- Allow **many-to-many relationships** between two objects.
- Store additional information about the relationship (e.g., quantity, date).

### Use Case:

- An **Order-Product junction object** tracks multiple products per order with quantity and status.

### Fields in Junction Object:

- Lookup to Order
- Lookup to Product
- Quantity Ordered
- Price or Status (optional)

## 9. External Objects

External objects allow Salesforce to **access data stored outside of Salesforce** in real-time.

### Purpose:

- Work with external systems without importing data.
- Useful for ERP, Inventory, or large legacy datasets.

### Use Cases:

- Access external ERP inventory levels to decide production quantities.
- Display external data in reports or dashboards without duplicating storage.