

Smart Waste Management Tracker – Salesforce Project

Phase 1: Problem Understanding & Industry Analysis

Step 1: Goal of Phase 1

- Understand the problem.
 - Why we are building Smart Waste Management Tracker.
 - Who will use it (stakeholders).
 - What is the expected outcome.
-

Step 2: Requirement Gathering

Stakeholders to consider (or imagine for demo):

- Municipal Authorities / Waste Management Company
- City Residents
- Maintenance Teams

Requirements:

1. Track all waste bins in city (location, type).
 2. Track pickup schedules.
 3. Alert if bin is full / needs maintenance.
 4. Generate reports: Weekly/Monthly pickup, recycling rate.
 5. Assign collection tasks to staff.
-

Step 3: Stakeholder Analysis

Stakeholder Role / Use

Admin (You) Setup Salesforce objects, flows, user access.

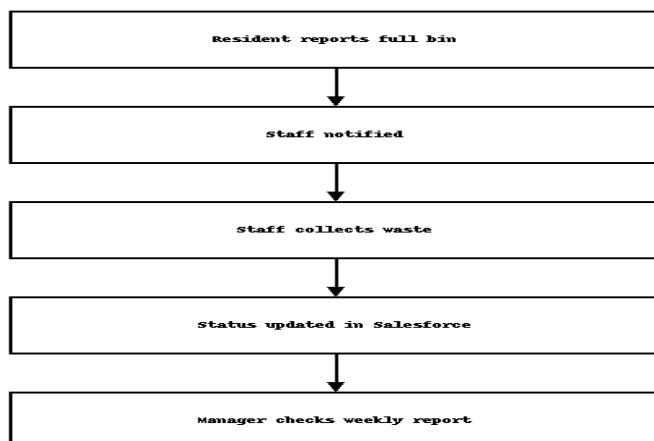
Collection Staff Update collection status, mark bins full/empty.

Manager Monitor city waste stats, generate reports.

Resident Report issues, feedback via portal (optional).

Step 4: Business Process Mapping (Workflow)

Flow:



Resident reports full bin → Staff notified → Staff collects waste → Status updated in Salesforce → Manager checks weekly report

Expected Outcome:

We now have a clear workflow and stakeholder understanding.

This ensures we can design Salesforce objects and automation correctly in the next phases.

Step 5: Industry-Specific Use Case

- Waste bins: **Recyclable, Organic, Non-Recyclable**.
- Pickup frequency varies by **location & bin type**.
- Bins may need **maintenance** if broken/delayed pickup.

Salesforce solution needs to:

- Track bins & types → WasteBin__c (custom object).
- Track collection schedule → CollectionRecord__c (custom object).
- Automate alerts & notifications → Flow + Email Alerts.

- Generate Reports → Daily / Weekly / Monthly dashboards.
-

Step 6: AppExchange Exploration

- If we search "Waste Management" in AppExchange → mostly **paid enterprise apps**.
- We will build a **custom simple solution** → Learn Salesforce **Admin + Developer concepts**.

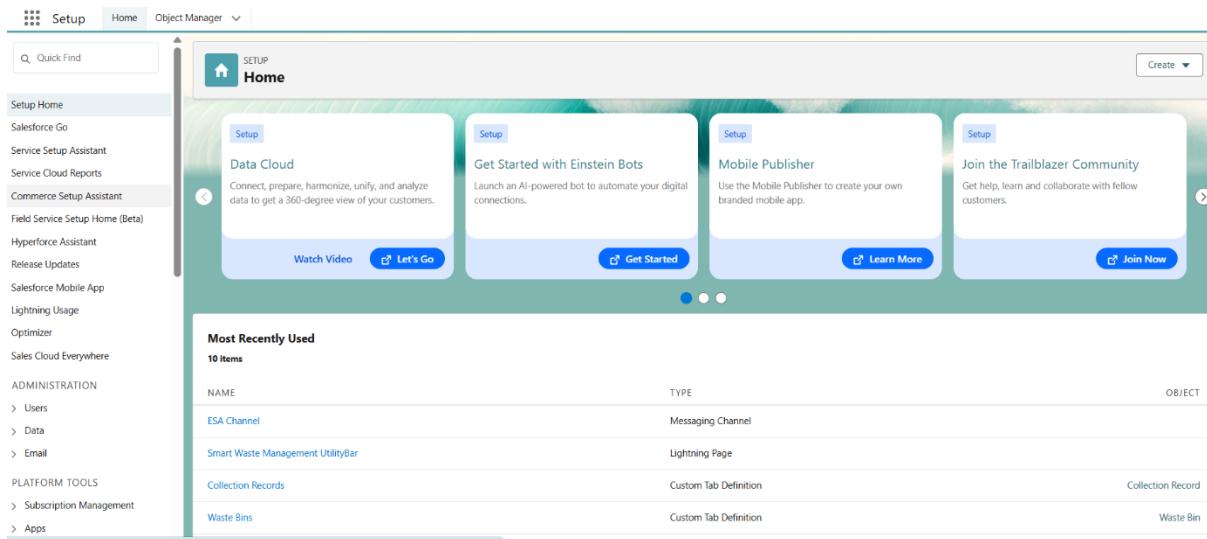
Smart Waste Management Tracker – Salesforce Project

Phase 2: Org Setup & Configuration

Step 1: Goal of Phase 2

- Prepare Salesforce environment.
- Setup Users, Roles, Profiles, Permissions.
- Configure Company Info, Business Hours, Holidays, Fiscal Year.

Expected Outcome (Phase 2 Goal): Org ready for Phase 3 (Data Modeling & Relationships).



Step 2: Salesforce Editions

- Use **Developer Edition Org** (free).
- Already account exists → login.
- Dev Org = sandbox for build/test.

The screenshot shows the Salesforce Setup Home interface. At the top, there's a navigation bar with 'Setup' (highlighted), 'Home', and 'Object Manager'. A 'Quick Find' search bar is also present. On the left, a sidebar lists various setup categories like 'Setup Home', 'Salesforce Go', etc. The main content area features three cards: 'Data Cloud' (with a 'Watch Video' and 'Let's Go' button), 'Get Started with Einstein Bots' (with a 'Get Started' button), and 'Mobile Publish' (with a 'Learn More' button). Below these is a section titled 'Most Recently Used' showing one item: 'Kiran kumari Thati' (User). A 'Setup Menu' is open on the right, listing options like 'Data Cloud Setup', 'Service Setup', and 'Salesforce Go'.

Step 3: Company Profile Setup

- Setup → Company Settings → Company Information.
- Fill details: Name, Timezone, Currency.
- Save.

The screenshot shows the 'Company Information' edit page. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The left sidebar shows 'Company Settings' and 'Company Information' (which is selected). A message at the bottom says ' Didn't find what you're looking for? Try using Global Search.' The main content area is titled 'Edit Organization Profile' for 'City Waste Management'. It contains sections for 'Organization Edit' (General Information, Address, Locale Settings) and 'City Waste Management' (Address). In the 'General Information' section, fields include 'Organization Name' (City Waste Management), 'Primary Contact' (Kiran kumari Thati), 'Street' (Kuttagalur), 'City' (Mangalagiri), 'Zip/Postal Code' (522503), 'State/Province' (AP), and 'Country' (India). The 'Locale Settings' section shows 'Default Locale' as English (India) and 'Default Language' as English.

Setup Home Object Manager

Company Information

Company Settings Company Information

Didn't find what you're looking for? Try using Global Search.

SETUP Company Information

City Waste Management

The organization's profile is below.

User Licenses [10+] | Permission Set Licenses [10+] | Feature Licenses [11] | Usage-based Entitlements []

Organization Detail		Edit	Deactivate Org
Organization Name	City Waste Management	Phone	
Primary Contact	Kiran kumari Thati	Fax	
Division		Default Locale	
Address	Kuragallu Mangalagiri 522503 AP India	Default Language	
Fiscal Year Starts In	January	(G)	
Activate Multiple Currencies	<input type="checkbox"/>	Currency Locale	
Enable Data Translation	<input type="checkbox"/>	31	
Newsletter	<input checked="" type="checkbox"/>	Used Data Space	
Admin Newsletter	<input checked="" type="checkbox"/>	2:	
Hide Notices About System Maintenance	<input type="checkbox"/>	API Requests, Last 24 Hours	
Hide Notices About System Downtime	<input type="checkbox"/>	0	
Locale Formats	ICU	Streaming API Events, Last 24 Hours	
		0	
		Restricted Logins, Current Month	
		0	
		Salesforce.com Organization ID	
		00	
		Organization Edition	
		De	
		IN	

Step 4: Business Hours & Holidays

- Setup → Business Hours → New → 9 AM – 6 PM.
- Holidays → Add public holidays.

Setup Home Object Manager

Company

Company Settings Business Hours

Calendar Settings Public Calendars and Resources

Company Information Data Protection and Privacy

Fiscal Year Holidays Language Settings My Domain

Didn't find what you're looking for? Try using Global Search.

SETUP Business Hours

Organization Business Hours

Help for this Page

Action	Business Hours Name	Active	Time Zone	New Business Hours	Default
Edit	Collection Staff Hours	<input type="checkbox"/>	(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)		<input type="checkbox"/>
Edit	Default	<input checked="" type="checkbox"/>	(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)		<input checked="" type="checkbox"/>

Step 5: Fiscal Year Settings

- Setup → Fiscal Year → Standard (Jan – Dec).
- Save.

Step 6: Users & Licenses

- Setup → Users → New User.
- Create: **Admin, Manager, Collection Staff**.
- Assign Salesforce license.

All Users

On this page you can create, view, and manage users.

To get more licenses, use the Your Account app. [Let's Go](#)

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	admin_Admin	kthat	krankumar1.swmt+mgr@domain.com	CFO	<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/> Edit	Agent_Coral_Cloud	cagen	agent.cyviven76ght.xuk6krjpyvv.osth3cw3y0@gmail.com		<input checked="" type="checkbox"/>	Standard User
<input type="checkbox"/> Edit	Chatter_Expert	Chatter	chatty.00frns00000b0vr2aq.zhvyychy1062@chatter.salesforce.com		<input checked="" type="checkbox"/>	Chatter Free User
<input type="checkbox"/> Edit	EinsteinServiceAgent_User	einstein	coral_cloud_experience_agent.8tshvjqmurr.fguix8edhv.rds-dnewg0@gmail.com		<input checked="" type="checkbox"/>	Custom Einstein Agent User
<input type="checkbox"/> Edit	manager_Manager	mmana	krankumar2.swmt+mgr@domain.com	COO	<input checked="" type="checkbox"/>	Standard User
<input type="checkbox"/> Edit	Rodriguez_Sofia	srodr	sotaroarodriguez.ol0wwd4dgkky.wjzcyvmonkgn2.dhvsbt04obm@gmail.com		<input checked="" type="checkbox"/>	Customer Community Login User
<input type="checkbox"/> Edit	Thati_Kiran_kumar	KThat	22h1ta0568ce@gmail.com	CEO	<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/> Edit	Thati_Kiran_kumari	kthat	krankumar1.swmt+mgr@domain.com	CEO	<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/> Edit	User_Integration	integ	integration@00dns00000b0vr2aq.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User_Security	sec	insightssecurity@00dns00000b0vr2aq.com		<input checked="" type="checkbox"/>	Analytics Cloud Security User

Step 7: Profiles

- Collection Staff → create/update tasks
- Manager → full access
- Admin → full + setup permissions

Collection Staff Profile

Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information.

If your organization uses Record Types, use the Edit links in the Record Type Settings section below to make one or more record types available to users with this profile.

Name	Collection Staff Profile	Custom Profile
User License	Salesforce	<input checked="" type="checkbox"/>
Description		
Created By	Kiran.kumar.Thati	18/09/2025, 9:14 pm
Modified By	Kiran.kumar.Thati	18/09/2025, 9:20 pm

Page Layouts

Standard Object Layouts	Global	Location Group Assignment
Email Application	Global Layout [View Assignment]	Macro [View Assignment]
Home Page Layout	DE Default [View Assignment]	Managed Content [View Assignment]
Account	Account Layout [View Assignment]	Managed Content Variant [View Assignment]
Account Brand	Account Brand Layout [View Assignment]	Messaging Channel [View Assignment]

Step 8: Roles

- Manager → Top

- Collection Staff → Below Manager

Step 9: Permission Sets

- Extra access for specific users → create Permission Set

Step 10: Org-Wide Defaults (OWD)

- WasteBin__c → Public Read Only
- CollectionRecord__c → Private

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. The page title is 'SETUP > OBJECT MANAGER Waste Bin'. On the left, a sidebar lists various object settings: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, Object Access, and Triggers. The main content area is titled 'Details' and contains fields for API Name (Waste_Bin__c), Singular Label (Waste Bin), Plural Label (Waste Bins), and various reporting and deployment settings. At the bottom right are 'Edit' and 'Delete' buttons.

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. The page title is 'SETUP > OBJECT MANAGER Collection Record'. The sidebar and main content area are identical to the 'Waste Bin' setup, showing details for the 'Collection_Record__c' object, including its API name, singular label (Collection Record), plural label (Collection Records), and various reporting and deployment settings. At the bottom right are 'Edit' and 'Delete' buttons.

Step 11: Sharing Rules

- Create rule → Share CollectionRecord__c with Manager

The screenshot shows the Salesforce Sharing Settings page under the Setup menu. The main section is titled "Sharing Rules" and contains "Lead Sharing Rules". A message box indicates that a sharing rule operation is in progress, preventing new owner-based sharing rules for Leads. It shows an entry initiated by "Kiran kumar Thati" on "Role: Manager" at "19/09/2025, 7:15 pm". Below this are sections for "Account Sharing Rules", "Opportunity Sharing Rules", "Case Sharing Rules", and "Campaign Sharing Rules", each with a "New" and "Recalculate" button.

Step 12: Login Access Policies

- Restrict login hours → 9 AM – 6 PM for Collection Staff

The screenshot shows the Salesforce Profiles page under the Setup menu. The main section is titled "Login Hours" and displays a table of daily login times. The table shows start and end times for each day of the week, with most days having a 9:00 am IST start and 6:00 pm IST end, except for Saturday which has "All Day" for both. Below this are sections for "Login IP Ranges", "Enabled Apex Class Access", and "Enabled Visualforce Page Access", each with their own configuration tables.

Step 13: Dev Org & Sandbox

- Build in Dev Org
- Sandbox → Production scenario

Step 14: Deployment Basics

- Change Sets / VS Code + SFDX → sandbox → production

Step 15: Expected Outcome (Phase 2 Completion)

- Salesforce org fully setup
- Users, Roles, Profiles, Permission Sets, OWD, Business Hours, Holidays configured
- Ready for Phase 3: Data Modeling & Relationships

Smart Waste Management Tracker – Salesforce Project

Phase 3: Data Modeling & Relationships

Step 1: Goal of Phase 3

- Define data model for Waste Management.
- Create custom objects: **WasteBin__c** and **CollectionRecord__c**.
- Define fields, relationships, validation rules, and page layouts.

Expected Outcome: Objects ready for record creation & data capture.

The screenshot shows the Salesforce Setup Home page. On the left, there's a sidebar with various setup options like Setup Home, Service Cloud Reports, and Commerce Setup Assistant. The main area is titled "Home" and features several cards: "Data Cloud" (Watch Video, Let's Go), "Get Started with Einstein Bots" (Get Started), "Mobile Publisher" (Learn More), and "Join the Trailblazer Community" (Join Now). Below these cards is a section titled "Most Recently Used" which lists four items: "ESA Channel" (Messaging Channel), "Smart Waste Management UtilityBar" (Lightning Page), "Collection Records" (Custom Tab Definition), and "Waste Bins" (Custom Tab Definition). The "OBJECT" column on the right indicates the type of each recently used item.

NAME	TYPE	OBJECT
ESA Channel	Messaging Channel	
Smart Waste Management UtilityBar	Lightning Page	
Collection Records	Custom Tab Definition	Collection Record
Waste Bins	Custom Tab Definition	Waste Bin

Step 2: Create Custom Objects

WasteBin__c

- Object Name: Waste Bin
- Record Name: Waste Bin Name (Text)
- Optional: Allow Reports & Activities → ✓
- Save.

Setup Home Object Manager

SETUP > OBJECT MANAGER
Waste Bin

Details

Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Restriction Rules
Scoping Rules
Object Access
Triggers

Details

Description
API Name: Waste_Bin__c
Custom: ✓
Singular Label: Waste Bin
Plural Label: Waste Bins

Details

Enable Reports
✓
Track Activities
✓
Track Field History
✓
Deployment Status: Deployed
Help Settings
Standard salesforce.com Help Window

Edit Delete

CollectionRecord__c

- Object Name: Collection Record
- Record Name: Collection Record Name (Text)
- Optional: Allow Reports & Activities → ✓
- Save.

Setup Home Object Manager

SETUP > OBJECT MANAGER
Collection Record

Details

Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Restriction Rules
Scoping Rules
Object Access
Triggers

Details

Description
API Name: Collection_Record__c
Custom: ✓
Singular Label: Collection Record
Plural Label: Collection Records

Details

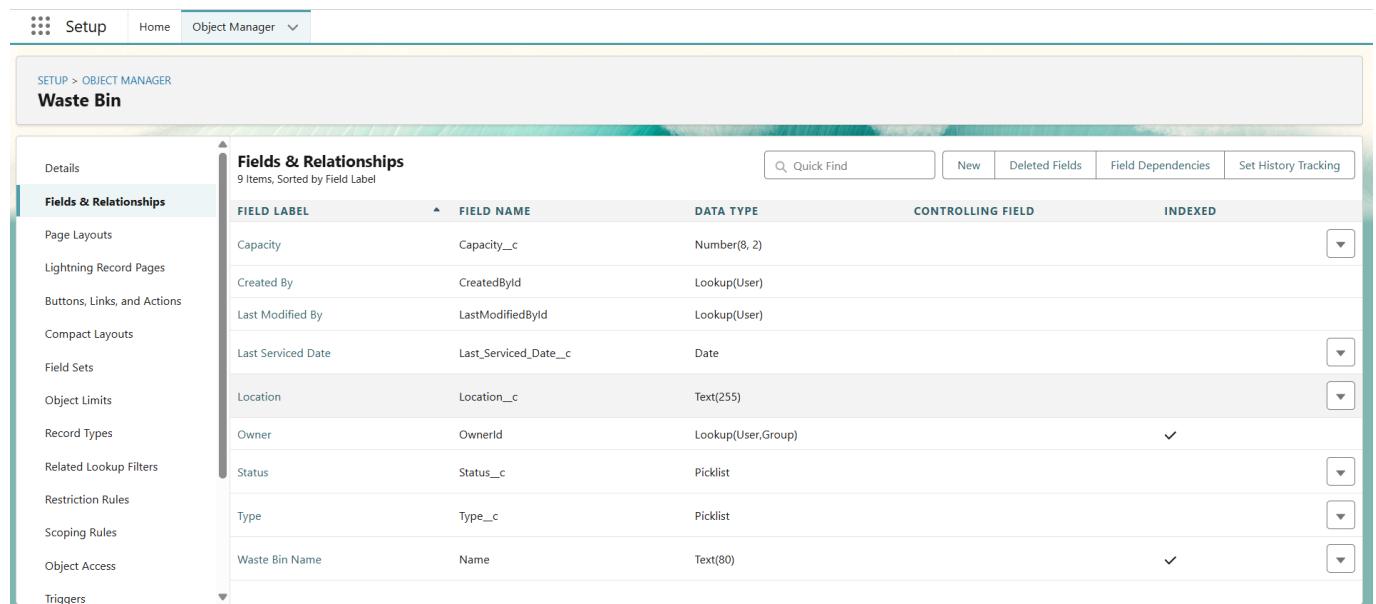
Enable Reports
✓
Track Activities
✓
Track Field History
✓
Deployment Status: Deployed
Help Settings
Standard salesforce.com Help Window

Edit Delete

Step 3: Define Fields for WasteBin__c

Field Label	Data Type	Notes
Location	Text	255 chars
Type	Picklist	Recyclable, Organic, Non-Recyclable
Capacity	Number	Max 8,2
Status	Picklist	Empty, Full, Needs Maintenance

LastServicedDate Date -



The screenshot shows the Salesforce Object Manager interface for the 'Waste Bin' object. The left sidebar lists various setup options like Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, etc. The main area is titled 'Fields & Relationships' and shows a table of fields. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The indexed column contains dropdown menus with some items expanded to show details.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Capacity	Capacity__c	Number(8, 2)		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Last Serviced Date	Last_Serviced_Date__c	Date		
Location	Location__c	Text(255)		
Owner	OwnerId	Lookup(User,Group)		▼
Status	Status__c	Picklist		
Type	Type__c	Picklist		
Waste Bin Name	Name	Text(80)		▼

Step 4: Define Fields for CollectionRecord__c

Field Label	Data Type	Notes
CollectionDate	Date/Time	-
CollectedBy	Lookup(User)	Optional filter: Collection Staff
QuantityCollected	Number	Max 8,2
Notes	Text Area	Optional

WasteBin Lookup(WasteBin__c) Relates record to bin

The screenshot shows the Salesforce Object Manager interface for the 'Collection Record' object. The left sidebar lists various setup options like Page Layouts, Lightning Record Pages, etc. The main area is titled 'Fields & Relationships' and shows 8 items, sorted by Field Label. A table lists the fields with their field labels, field names, data types, controlling fields, and indexing status.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Collected By	User__c	Lookup(User)		✓
Collection Date	Collection_Date__c	Date/Time		✓
Collection Record Name	Name	Text(80)		✓
Created By	CreatedBy	Lookup(User)		
Last Modified By	LastModifiedBy	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Quantity Collected (Litres)	Quantity_Collected_Litres__c	Number(8, 2)		
Waste Bin	Waste_Bin__c	Lookup(Waste Bin)		✓

Step 5: Validation Rule

- Object: CollectionRecord__c
- Rule: **QuantityCollected >= 0**
- Error Message: "Quantity cannot be negative."
- Location: Top of page or specific field.

The screenshot shows the Salesforce Object Manager interface. At the top, there are tabs for Setup, Home, and Object Manager. Below the tabs, the title "Object Manager" is displayed with a document icon. The main content area is titled "Collection Record Validation Rule". It shows a table with the following data:

Validation Rule Detail	
Rule Name	Check_Negative_Quantity
Error Condition Formula	Quantity__Collected__Litres__c < 0
Error Message	Quantity cannot be negative.
Description	
Created By	Kiran.kumari.Thati, 21/09/2025, 1:33 pm
Active	<input checked="" type="checkbox"/>
Error Location	Top of Page
Modified By	Kiran.kumari.Thati, 21/09/2025, 1:33 pm

At the bottom of the table, there are "Edit" and "Clone" buttons.

Step 6: Page Layouts

Waste Bin Layout

- Fields order: Location → Type → Capacity → Status → LastServicedDate

The screenshot shows the Salesforce Setup interface for "Waste Bin". The left sidebar has a "Page Layouts" section selected. The main area is titled "Waste Bin Layout". It shows a "Fields" section with the following fields listed vertically: Buttons, Quick Actions, Mobile & Lightning Actions, Expanded Lookups, Related Lists, Report Charts, Capacity, Last Modified By, Status, Type, Location, Waste Bin Name, Created By, and Owner. There is also a "Blank Space" row. Below this is a "Waste Bin Sample" section with "Highlights Panel" and "Quick Actions in the Salesforce Classic Publisher" sections. A note states: "Actions in this section are currently inherited from the global publisher layout. You can override the global publisher layout to set a customized list of actions for the publisher on pages that use this layout." At the bottom is a "Salesforce Mobile and Lightning Experience Actions" section with a similar note.

Collection Record Layout

- Fields order: CollectionDate → CollectedBy → QuantityCollected → WasteBin → Notes
- Effect: Record creation page neat and user-friendly.

The screenshot shows the Salesforce Setup interface under the Object Manager section for the Collection Record object. The left sidebar is expanded, showing various layout categories like Details, Fields & Relationships, and Page Layouts. The Page Layouts section is selected, and the sub-menu shows options such as Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, Object Access, and Triggers. The main content area displays the 'Collection Record Layout' configuration screen. It includes a toolbar with Save, Quick Save, Preview As..., Cancel, Undo, Redo, and Layout Properties buttons. Below the toolbar is a 'Fields' section containing a table with columns for Field Name and Type. The table includes rows for Section, Collection Record..., Created By, Quantity Collected..., Blank Space, Collected By, Last Modified By, and Collection Date, Owner. A 'Quick Find' search bar is also present. The right side of the screen contains sections for 'Collection Record Sample', 'Highlights Panel', 'Quick Actions in the Salesforce Classic Publisher', and 'Salesforce Mobile and Lightning Experience Actions'.

Step 7: Mini Page Layouts (Optional)

Waste Bin Mini Layout

- Fields: Waste Bin Name, Owner, Location, Type, Capacity, Status, LastServicedDate

The screenshot shows the Salesforce Setup interface under the Object Manager section for the Waste Bin object. The left sidebar is expanded, showing various layout categories like Details, Fields & Relationships, and Page Layouts. The Page Layouts section is selected, and the sub-menu shows options such as Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, Object Access, and Triggers. The main content area displays the 'Waste Bin Layout' configuration screen. It includes a toolbar with Save and Cancel buttons. Below the toolbar is a 'Fields' section with two columns: 'Available' and 'Selected'. The Available column lists 'Created By' and 'Last Modified By'. The Selected column lists 'Waste Bin Name', 'Owner', 'Location', 'Type', 'Capacity', 'Status', and 'Last Serviced Date'. There are 'Add' and 'Remove' buttons between the columns, and 'Up' and 'Down' buttons for reordering the selected fields. A 'Related Lists' section at the bottom includes checkboxes for 'Open Activities' and 'Activity History'.

Collection Record Mini Layout

- Fields: Collection Record Name, WasteBin, CollectedBy, QuantityCollected

The screenshot shows the 'Collection Record' layout configuration. On the left, a sidebar lists various setup options like Details, Fields & Relationships, Page Layouts, and Lightning Record Pages. The 'Page Layouts' section is currently selected. The main area is titled 'Collection Record Layout' and contains a sub-section 'Mini Page Layout'. It displays two columns: 'Available' (containing fields like 'Created By', 'Last Modified By', 'Owner') and 'Selected' (containing fields like 'Collection Date', 'Collected By', 'Quantity Collected (Litres)', 'Waste Bin', 'Collection Record Name'). Buttons for 'Add' (with arrows), 'Remove', and 'Up/Down' sorting are visible between the columns. A 'Save' and 'Cancel' button are at the top right.

Step 8: Relationships & Lookup Filters (Optional)

- CollectedBy → Lookup(User)
 - Optional filter: Only Collection Staff users

The screenshot shows the configuration for the 'Collected By' custom field. The sidebar on the left includes 'Details', 'Fields & Relationships' (which is selected), and other options like Page Layouts and Lightning Record Pages. The main area is titled 'Collection Record Custom Field' and 'Collected By'. It shows the 'Custom Field Definition Detail' with the field name 'User' and API name 'User__c'. The 'Field Information' section includes details like 'Object Name: Collection Record' and 'Data Type: Lookup'. The 'Lookup Options' section shows it is related to the 'User' object and has a child relationship named 'Collection_Records'. A note says 'What to do if the lookup record is deleted? Clear the value of this field.' The 'Lookup Filter' section is partially visible at the bottom.

- WasteBin in CollectionRecord → Lookup(WasteBin__c)

The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The main title is 'Collection Record'. On the left, a sidebar titled 'Fields & Relationships' lists various options like Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, etc. The central content area is titled 'Collection Record Custom Field' and shows a 'Waste Bin' field definition. The 'Field Information' section details the field label ('Waste Bin'), field name ('Waste_Bin'), API name ('Waste_Bin__c'), and data type ('Lookup'). It also shows the object name ('Collection Record') and a created date ('20/09/2025, 10:33 pm'). The 'Lookup Options' section specifies the related object ('Waste_Bin') and child relationship name ('Collection_Records'). A note at the bottom says 'What to do if the lookup record is deleted?'. The top right corner has a 'Help for this Page' link.

Step 9: Expected Outcome (Phase 3 Completion)

- Custom objects **WasteBin__c** and **CollectionRecord__c** created.
- All fields defined with proper data types.
- Page layouts & mini layouts arranged.
- Validation rules set.
- Ready for record creation & testing in Phase 4.

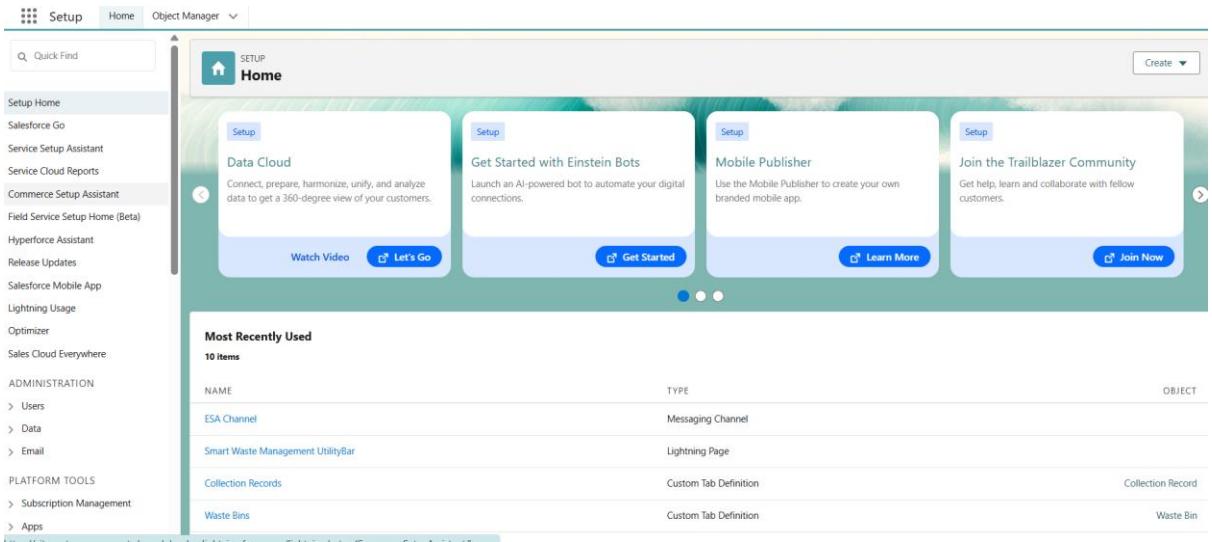
Smart Waste Management Tracker – Salesforce Project

Phase 4: Automation – Record-Triggered Flow

Step 1: Goal of Phase 4

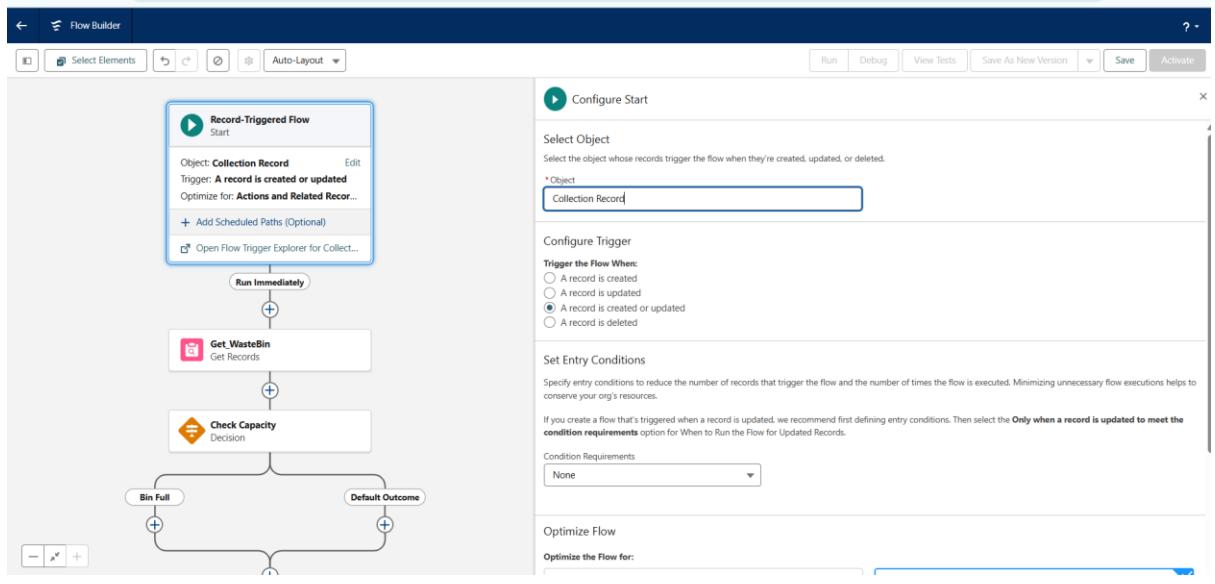
- Automate WasteBin status update when a CollectionRecord is created or updated.
- Reduce manual work and ensure accurate bin status tracking.

Expected Outcome: Collection of records automatically updates the corresponding WasteBin status.



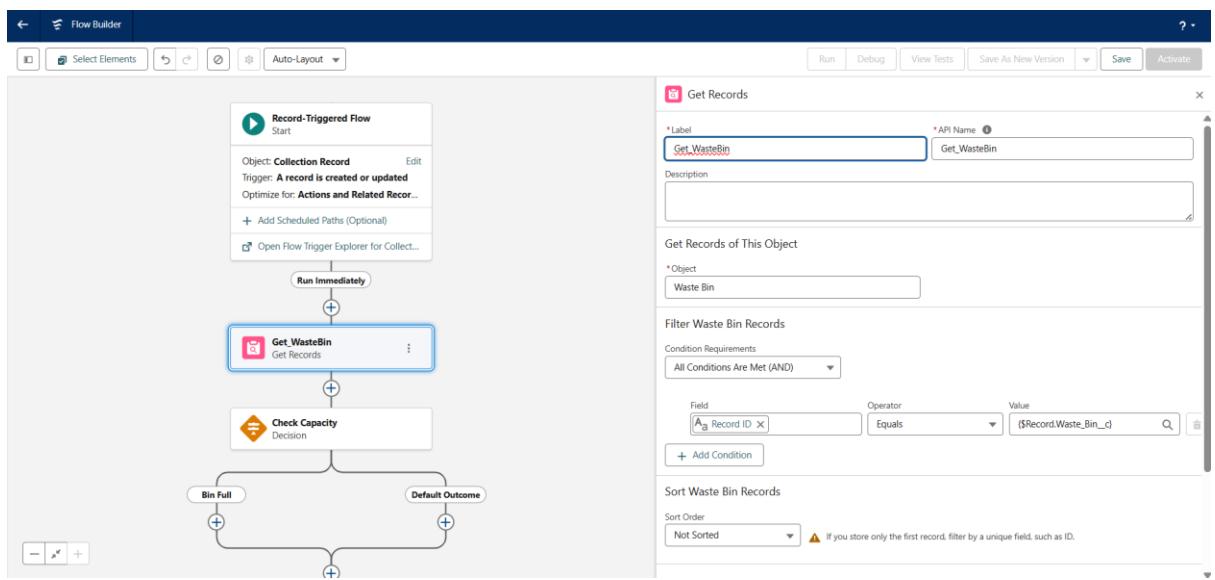
Step 2: Create Record-Triggered Flow

- Setup → Process Automation → Flows → New Flow → Record-Triggered Flow.
- Select **Object:** CollectionRecord__c
- Trigger the flow: **A record is created or updated**
- Entry Conditions: **None** (or as per requirement)
- Optimize Flow for **Fast Field Updates**



Step 3: Get WasteBin Record

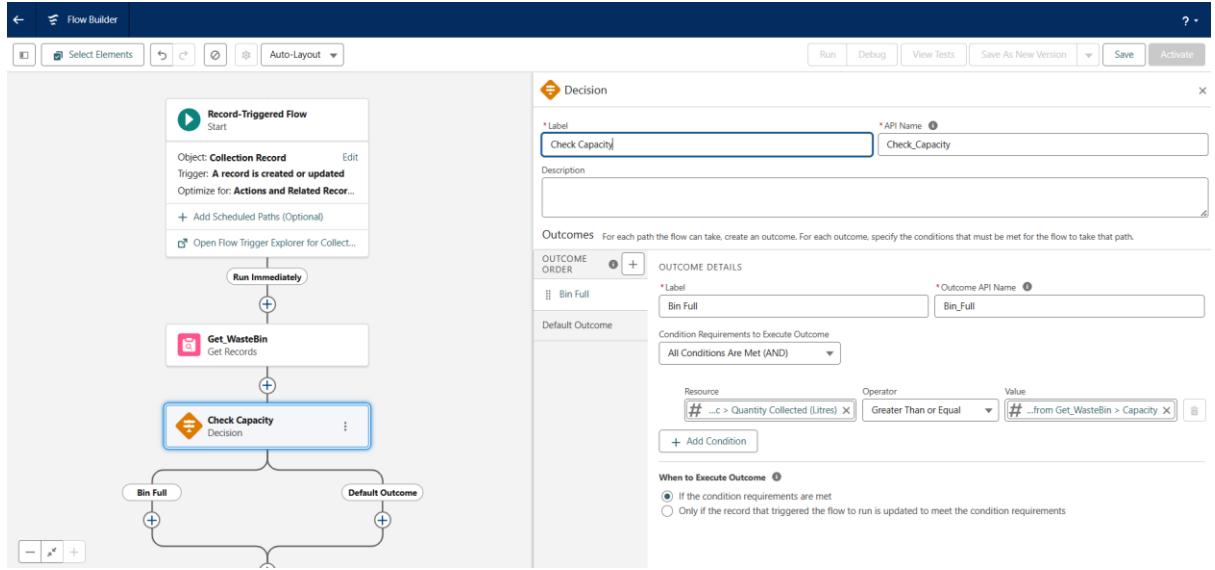
- Add **Get Records** element → Label: Get_WasteBin
- Object: WasteBin__c
- Condition: Id = {!\$Record.WasteBin__c} (lookup from triggering CollectionRecord)
- Store all fields → Only the first record



Step 4: Check Bin Capacity (Decision Element)

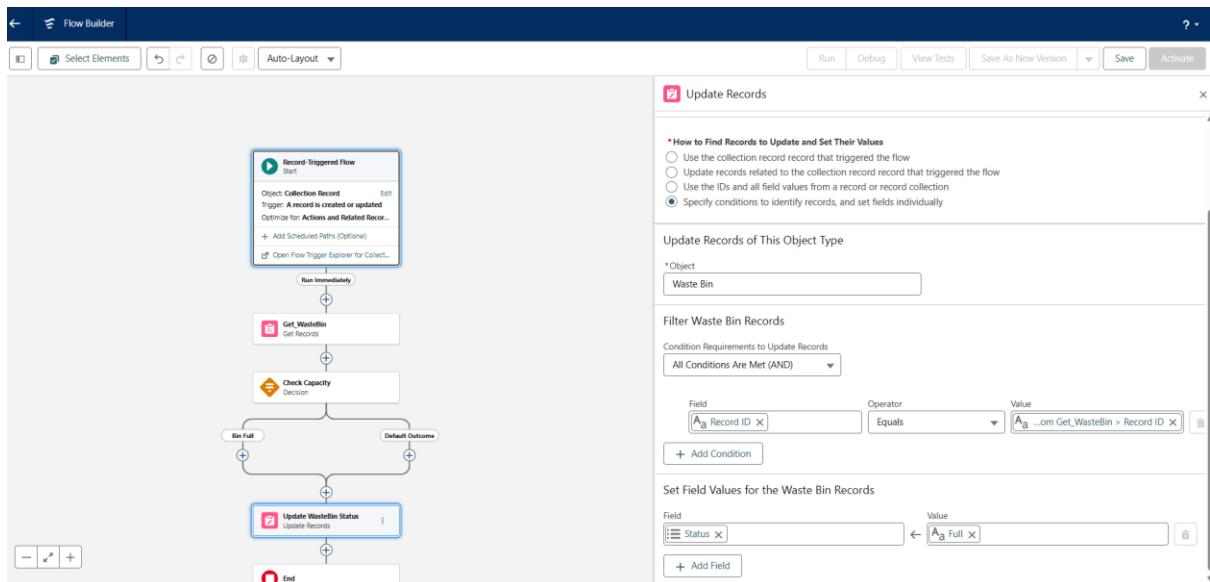
- Add **Decision** → Label: Check Capacity
- Outcome 1: Bin Full → Condition: {\$Record.Quantity_Collected__c} >= Capacity__c

- Outcome 2: Default Outcome → Any other case



Step 5: Update WasteBin Status

- Add **Update Records** → Label: `Update_WasteBin_Status`
- Record to update: Waste Bin from Get_WasteBin
- Set Field Values:
 - Field: `Status__c`
 - Value: Full (or based on logic)

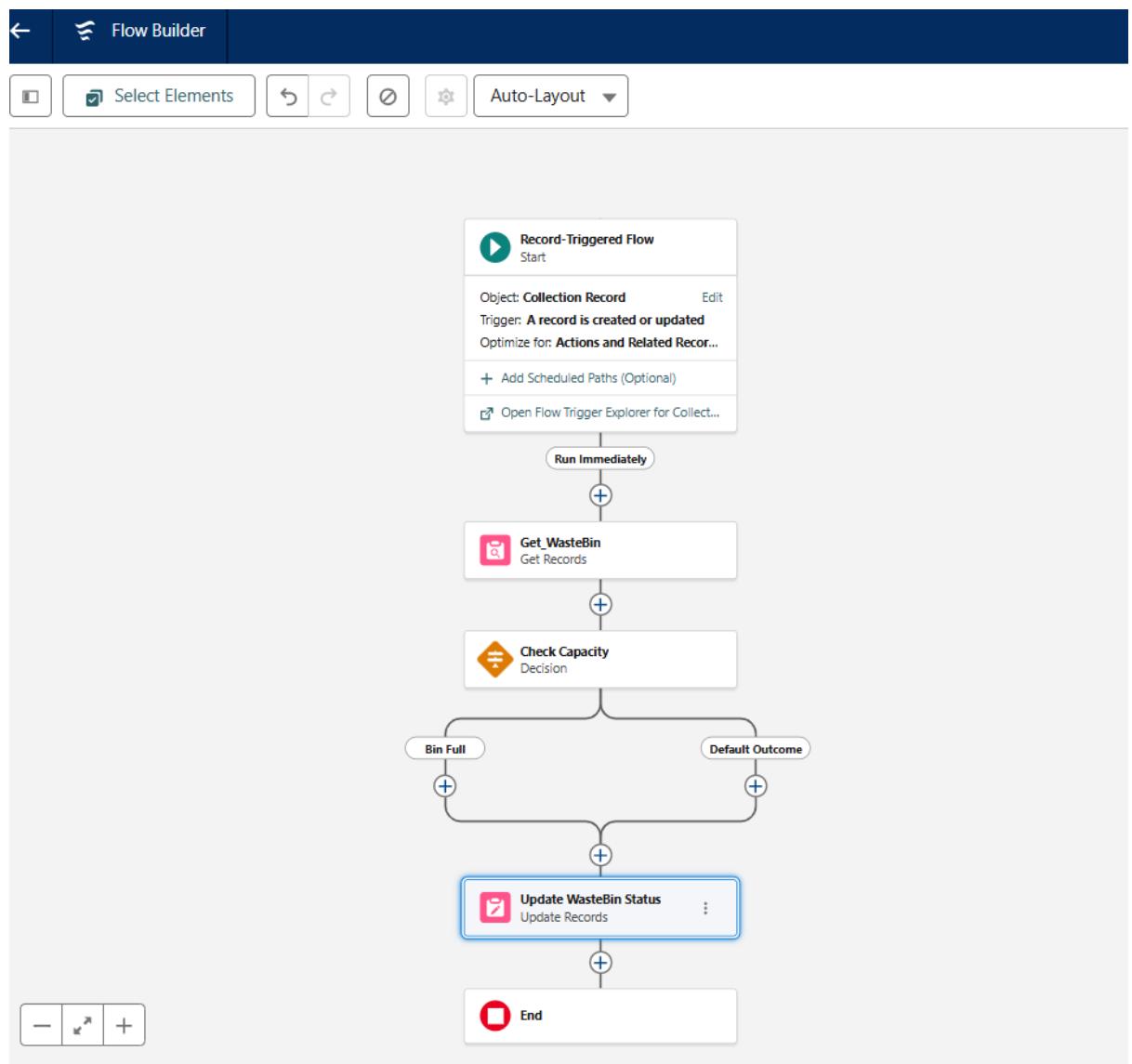


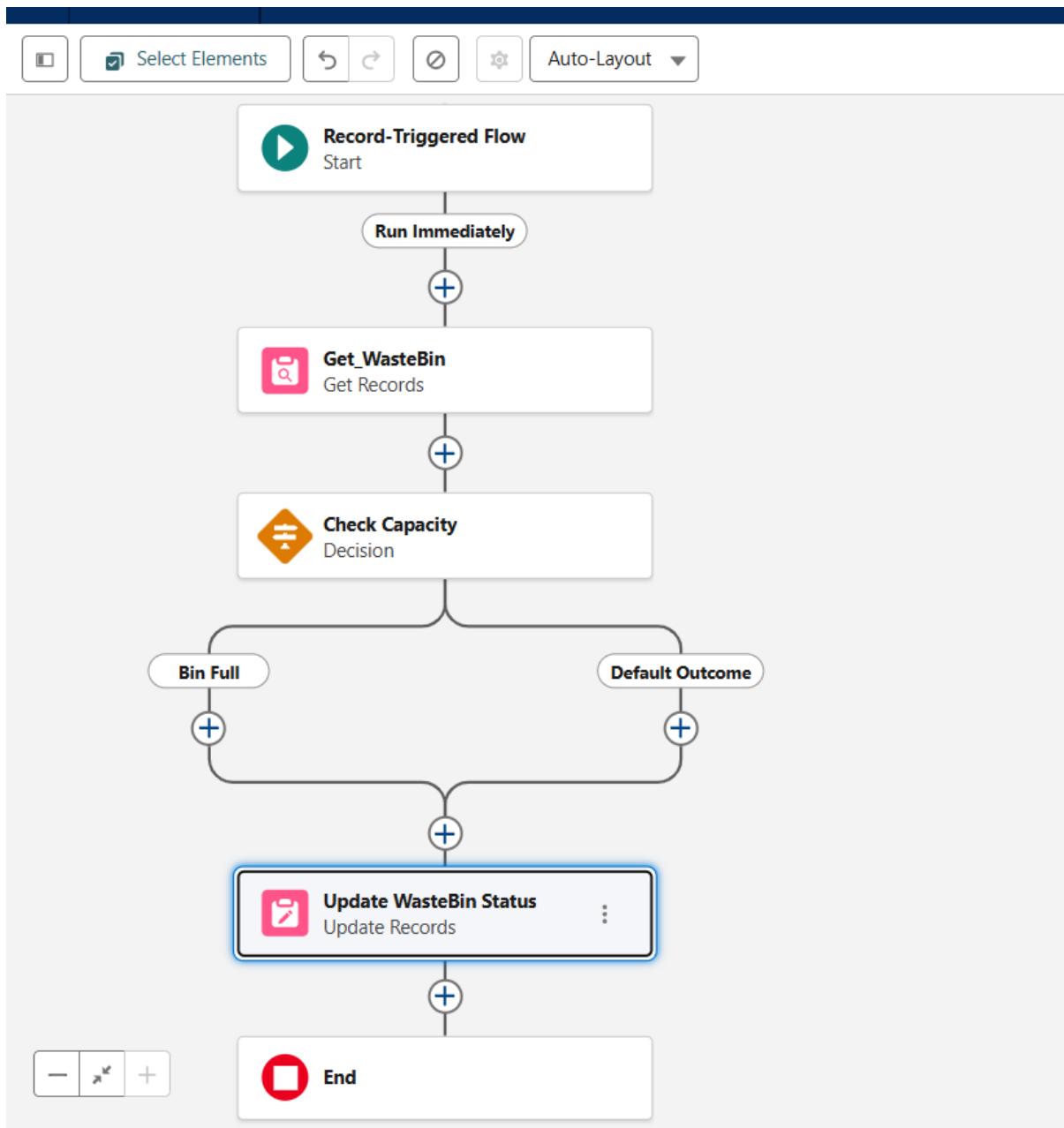
Step 6: Connect Flow Elements

- Start → Get_WasteBin → Check Capacity → Update_WasteBin_Status → End
 - Connect both decision outcomes if needed
-

Step 7: Save & Activate Flow

- Flow Label: Update Waste Bin Status
- API Name: Update_Waste_Bin_Status
- Description: "Automatically updates WasteBin__c status to Full when CollectionRecord__c is created/updated"
- Save → Activate





Expected Outcome (Phase 4 Completion)

- WasteBin status automatically updates based on CollectionRecord quantity.
- Reduces manual errors and improves operational efficiency.
- Flow ready for testing in Sandbox/Dev Org.

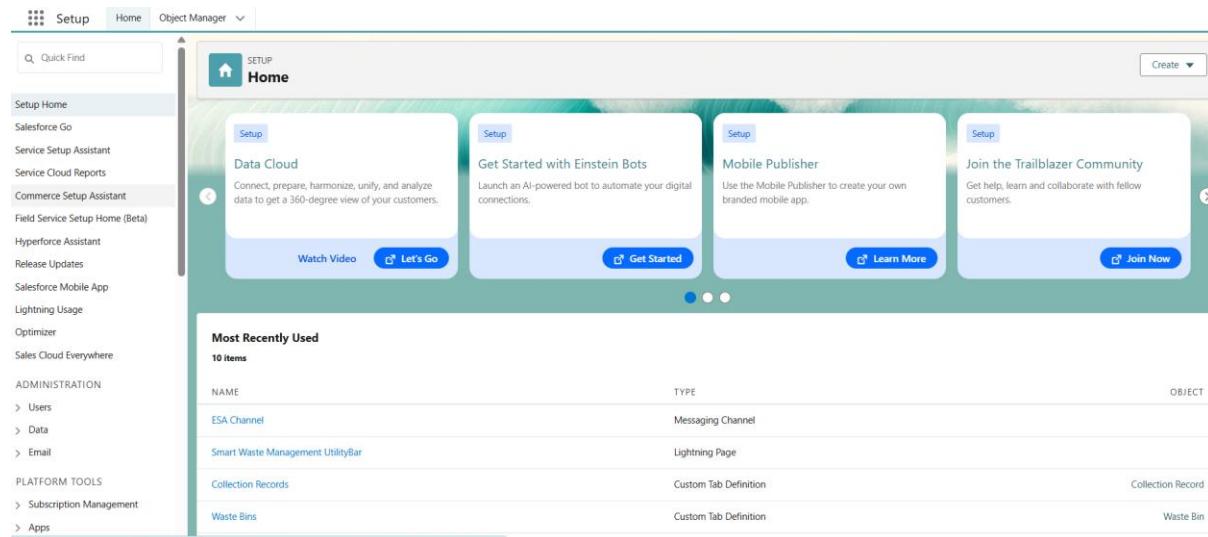
Smart Waste Management Tracker – Salesforce Project

Phase 5: Reports & Dashboards

Step 1: Goal of Phase 5

- Generate reports for Waste Management data.
- Analyze WasteBin__c and CollectionRecord__c records.
- Prepare dashboards and summary charts for quick insights.

Expected Outcome: Reports created to monitor collection status, quantities collected, and bin status.



Step 2: Use Standard Report Types

1. Go to App Launcher → Reports → New Report.
2. In the **Search Report Types**, type:
 - Collection Records
 - Waste Bins
3. Select the standard report type:
 - Example: **Waste Bins with Collection Records**
4. Click **Continue**.

Setup Home Object Manager

report

SETUP Custom Report Types

New Custom Report Type

2 Define Report Records Set

Select related objects to define which records are included in reports using this report type.

A Waste Bins Primary Object

B Collection Records details

A to B Relationship:

- Each "A" record must have at least one related "B" record.
- "A" records may or may not have related "B" records.

Previous Save Cancel

Setup Home Object Manager

report

SETUP Custom Report Types

Waste Bins with Collection Records

Below is the information for this custom report type. You can click the buttons on this to preview or update information for the custom report type.

Preview Layout Edit Layout Clone Delete Close

Details		Object Relationships
Display Label	Waste Bins with Collection Records	Waste Bins (A)
API Name	Waste_Bins_with_Collection_Records	with or without related records from Collection Records (B)
Description	This report type allows users to view Waste Bins along with their related Collection Records, including status, location, and quantities collected.	A
Created By	Kiran kumari Thati, 9/23/25, 6:17 PM	B
Store in Category	other	A & B
Deployment Status	Deployed	
Modified By	Kiran kumari Thati, 9/23/25, 6:17 PM	

Step 3: Add Fields to Report

- Include the following columns in the report:
 - Waste Bin Name
 - Collection Record Name
 - Quantity Collected
 - Status
 - Collected By
 - Collection Date
- Set filters:
 - Created Date = All Time

- Status = All

Screenshot Placeholder: Phase5_AddFields.png

Caption: Figure 1: Adding fields and filters to report

The screenshot shows the Salesforce Report Builder interface. The top navigation bar includes 'REPORT' with a dropdown, 'New Report', and the report title 'Waste Bins with Collection Records'. On the right are buttons for 'Add Chart', 'Save & Run', 'Save', 'Close', and 'Run'. A checkbox 'Update Preview Automatically' is checked.

The main area has two panels: 'Outline' and 'Filters'. The 'Outline' panel shows a tree structure under 'Groups' with 'GROUP ROWS' selected. Below it is a list of columns: Collection Record Name, Waste Bin ID, Waste Bin Name, Collection Record ID, Created By: Full Name, Quantity Collected (Litres), Status, Collection Date, and Collected By: Full Name. The 'Filters' panel contains dropdowns for Collection Record Name, Waste Bin ID, Waste Bin Name, Collection Record ID, Created By: Full Name, Quantity Collected (Litres), Status, Collection Date, and Collected By: Full Name. A note says 'No records returned in preview. Try running the report or editing report filters.' with options to 'Show All waste bins', 'Set the Created Date filter to All Time', and 'Edit other filters in the filter panel'.

Step 4: Group Records (Optional)

- **Group Rows by:** Waste Bin Name → To see all collections for each bin.
- Add **columns** if needed (optional).

Screenshot Placeholder: Phase5_GroupRows.png

Caption: Figure 2: Grouping report rows by Waste Bin

The screenshot shows the Salesforce Setup interface under 'Service Cloud Reports'. The left sidebar has sections for 'Feature Settings', 'Analytics', 'Reports & Dashboards', 'Access Policies', 'Historical Trending', 'Report Types' (which is selected), 'Reporting Snapshots', 'Reports and Dashboards', and 'Settings'. The 'Report Types' section shows a report named 'Waste Bins with Collection Records'.

The main content area shows the 'Custom Report Types' page for this report. It includes a 'Details' section with fields like Display Label (Waste Bins with Collection Records), API Name (Waste_Bins_with_Collection_Records), Description (This report type allows users to view Waste Bins along with their related Collection Records, including status, location, and quantities collected.), Created By (Kiran kumari Thati, 9/23/25, 6:17 PM), Store in Category (other), Deployment Status (Deployed), and Modified By (Kiran kumari Thati, 9/23/25, 6:17 PM). There is also an 'Object Relationships' section with a diagram showing 'Waste Bins (A)' and 'Collection Records (B)' with a Venn-like overlap labeled '... with or without related records from Collection Records (B)'. Below the diagram is a legend with 'A' and 'B'.

At the bottom, there is a summary card for the report:

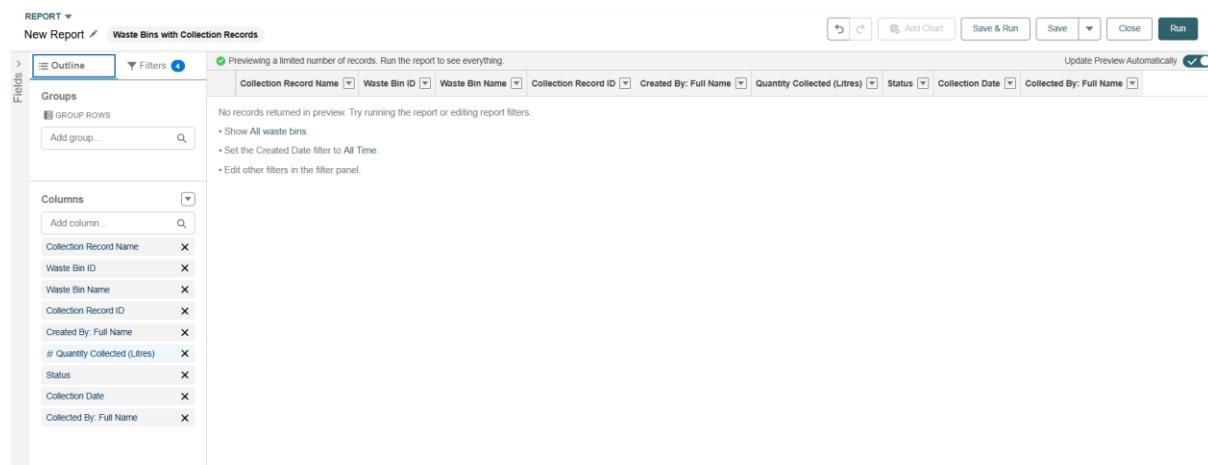
Report: Waste Bins with Collection Records
Waste Bins with Collection Records Report
Shows all Waste Bins along with their related Collection Records, including quantities collected and status.

Step 5: Run & Save Report

- Click **Run** to preview the report.
- Click **Save:**
 - Report Name: Waste Bins with Collection Records Report
 - Folder: Private Reports (or Public if allowed)

Screenshot Placeholder: Phase5_RunSaveReport.png

Caption: Figure 3: Running and saving report



Step 6: Create Dashboards (Optional)

- Use saved reports as data source for dashboards.
- Example components:
 - Bar chart → Total Quantity Collected per Waste Bin
 - Pie chart → Waste Bin status distribution

Screenshot Placeholder: Phase5_Dashboard.png

Caption: Figure 4: Sample dashboard for Waste Management

Step 7: Expected Outcome (Phase 5 Completion)

- Reports created to view WasteBin__c and CollectionRecord__c data.
- Filters and groupings applied for easy analysis.
- Dashboards can visualize collection data and bin status trends.

Screenshot Placeholder: Phase5_ExpectedOutcome.png

Caption: Figure 5: Phase 5 completed – reports ready for analysis



Report: Waste Bins with Collection Records

Waste Bins with Collection Records Report

Shows all Waste Bins along with their related Collection Records, including quantities collected and status.

Smart Waste Management Tracker – Salesforce Project

Phase 6: Flow Automation (Bin Status Update)

Step 1: Goal of Phase 6

- Automate Waste Bin Status updates using **Record-Triggered Flows**.
- Whenever a **Collection Record** is created, the related **Waste Bin** status will automatically update based on the quantity collected.

Expected Outcome: Flow updates the Waste Bin status dynamically without manual effort.

The top screenshot shows the Salesforce Home page. On the left, there's a sidebar with links like Setup Home, Service Cloud Reports, and Commerce Setup Assistant. The main area has sections for Data Cloud, Get Started with Einstein Bots, Mobile Publisher, and Join the Trailblazer Community. Below these is a 'Most Recently Used' section with a table showing items like 'ESA Channel' (Messaging Channel), 'Smart Waste Management UtilityBar' (Lightning Page), 'Collection Records' (Custom Tab Definition), and 'Waste Bins' (Custom Tab Definition). The bottom screenshot shows the 'Flow Builder' interface. It has a 'Toolbox' on the left with 'Elements' selected. The main area is titled 'New Automation' and contains sections for 'Get Started with Automations' (with a search bar) and 'Categories'. Under 'Categories', there are four boxes: 'Triggered' (Automations launched by records and events), 'Scheduled' (Time-based automations), 'Screen' (Interface-driven automations), and 'Autolaunched' (Automations that automatically launch). Below these are sections for 'Frequently Used' flows: 'Autolaunched Flow (No Trigger)', 'Record-Triggered Flow', 'Template-Triggered Prompt Flow', and 'Omni-Channel Flow'.

Step 2: Create Record-Triggered Flow

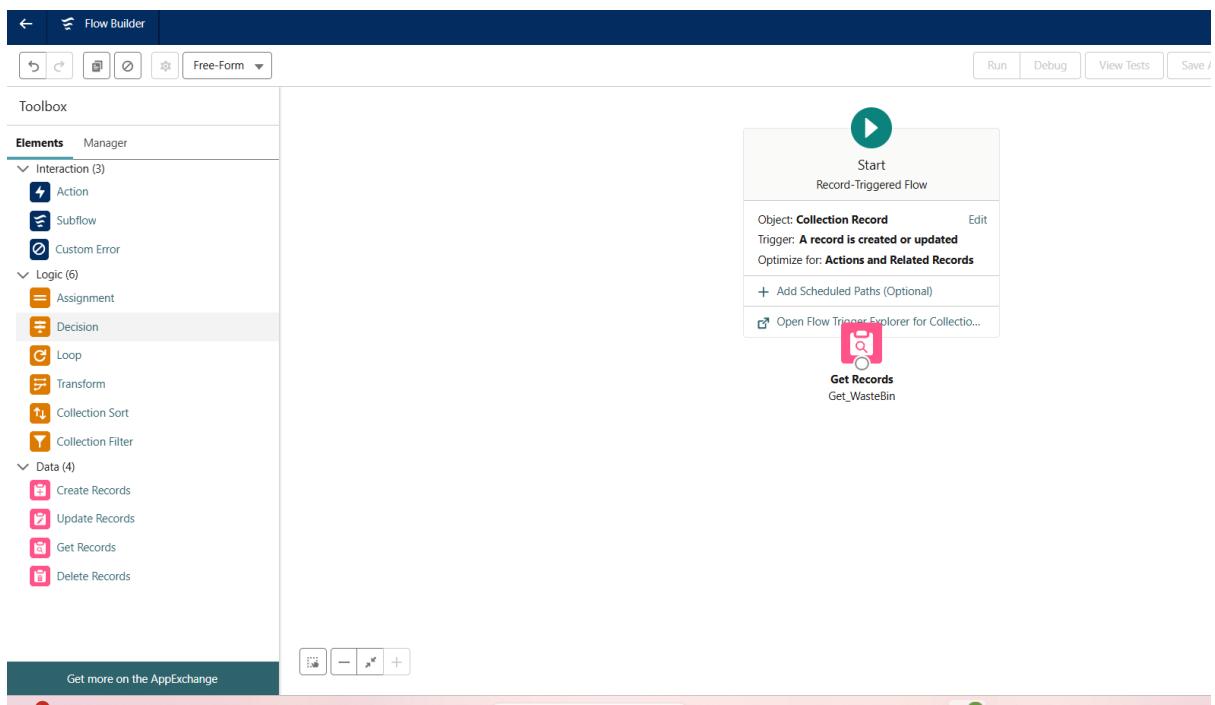
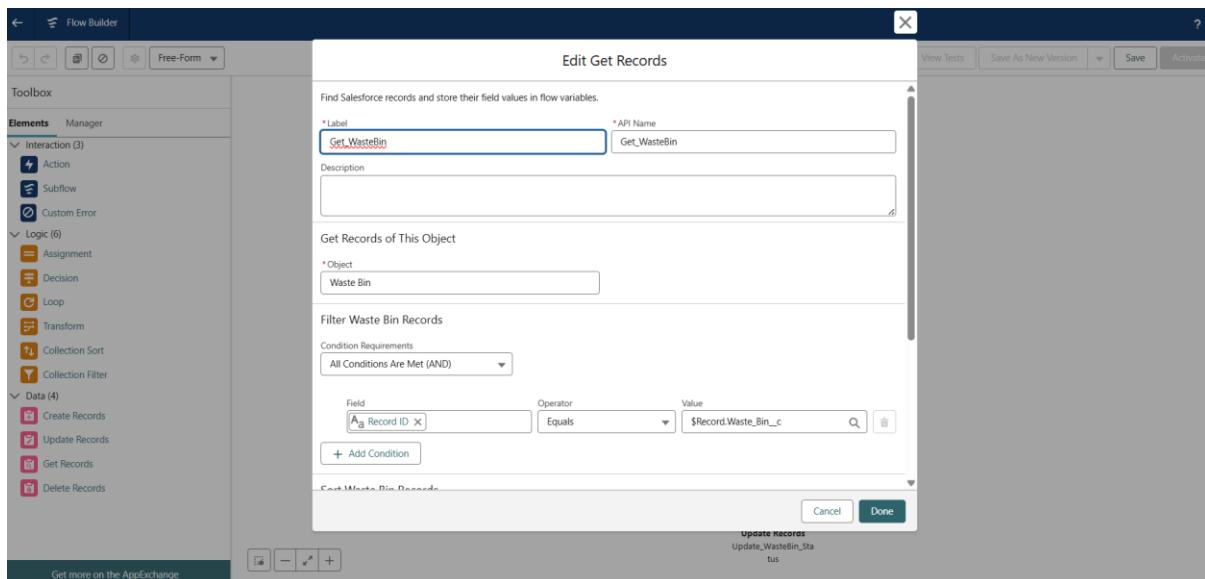
- Go to **Setup → Flow → New Flow**.

- Select **Record-Triggered Flow**.
- Object: **Collection Record (CollectionRecord__c)**.
- Trigger: **A record is created**.

The screenshot shows the Salesforce Flow Builder interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager'. Below it is a sidebar with categories like 'Apps', 'Lightning Bolt', 'Flow Category', 'Process Automation', 'Automation Home (Beta)', 'Flows', 'Migrate to Flow', 'Paused And Failed Flow', 'Interviews', 'Process Builder', 'Workflow Actions', 'Email Alerts', 'Field Updates', 'Outbound Messages', 'Send Actions', 'Tasks', 'Workflow Rules', and 'Identity'. The main area is titled 'Flows' and shows a table of 'Flow Definitions'. The table has columns for 'Flow Label', 'Process Type', 'Active', 'Template', 'Package State', 'Packag...', 'Last Modified By', 'Last Modified Date', and 'Actions'. There are many rows of flows listed, such as 'Add Case Comment', 'Add Experiences to Prompt', etc. Below the table is a 'Flow Builder' window. It has tabs for 'Interaction', 'Logic', 'Data', and 'Toolbox'. The 'Toolbox' tab is selected, showing various flow elements like Action, Subflow, Custom Error, Assignment, Decision, Loop, Transform, Collection Sort, Collection Filter, Create Records, Update Records, Get Records, and Delete Records. The 'Interaction' tab shows a 'Start' element for a 'Record-Triggered Flow'. The 'Start' element has fields for 'Object: Collection Record', 'Trigger: A record is created or updated', and 'Optimize for: Actions and Related Records'. Buttons at the bottom of the Flow Builder include 'Run', 'Debug', 'View Tests', 'Save As New Version', 'Save', and 'Activate'.

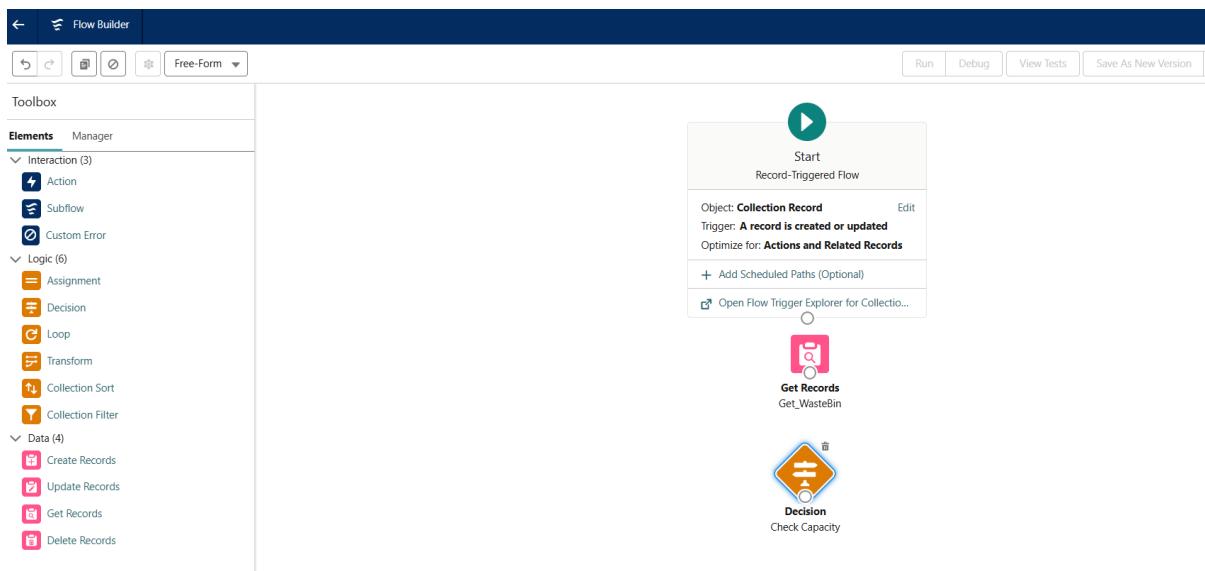
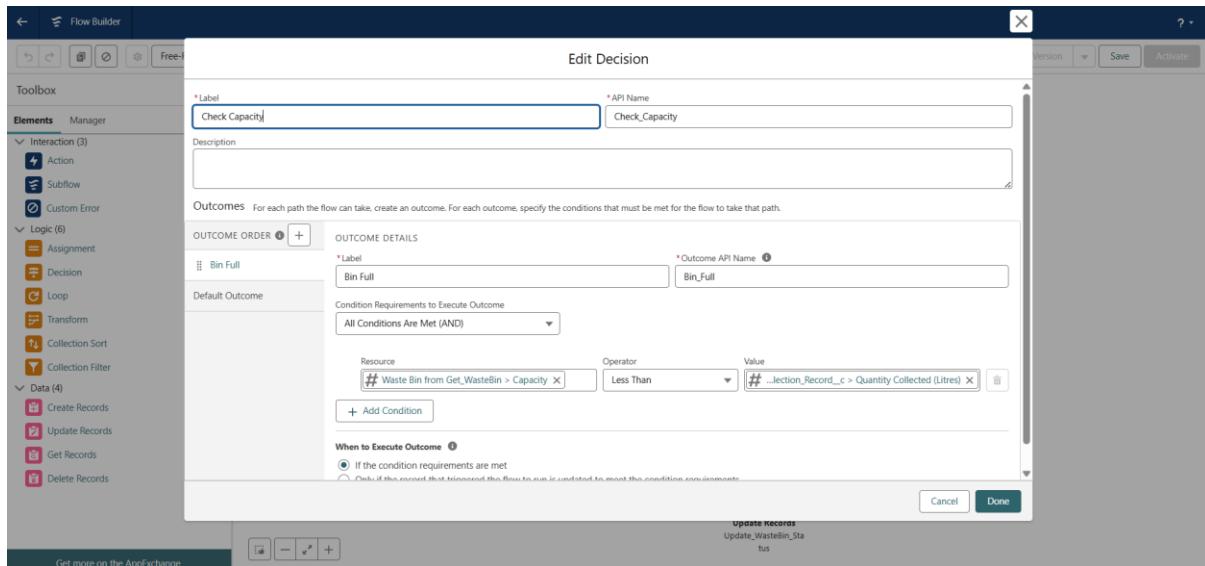
Step 3: Get Related Waste Bin Record

- Element: **Get Records**.
- Label: **Get_WasteBin**.
- Object: **WasteBin__c**.
- Condition: **`Id = {!$Record.Waste_Bin__c}`** (Lookup field from Collection Record).



Step 4: Decision Element – Check Capacity

- Element: **Decision**.
- Label: **Check_Capacity**.
- Outcome 1: **Bin Full**
 - Condition: $\{\!Get_WasteBin.Capacity_c\} \leq \{\!\$Record.Quantity_Collected_Litres_c\}$.
- Default Outcome: **Not Full**.



Step 5: Update Waste Bin Status

- Element: **Update Records**.
- Label: **Update_WasteBin_Status**.
- Object: **WasteBin__c** (from Get_WasteBin).
- Field to Update:
 - **Status = Full** (if condition met).

The screenshot shows the Salesforce Flow Builder interface. On the left is the 'Toolbox' sidebar with categories like Interaction, Logic, and Data. The main area is titled 'Edit Update Records'.

Update Salesforce records using values from the flow.

- Label:** Update_WasteBin_Status
- API Name:** Update_WasteBin_Status
- Description:** (empty)
- How to Find Records to Update and Set Their Values:**
 - Use the collection record that triggered the flow
 - Update records related to the collection record that triggered the flow
 - Use the IDs and all field values from a record or record collection
 - Specify conditions to identify records, and set fields individually**
- Update Records of This Object Type:**
 - Object:** Waste Bin
- Filter Waste Bin Records:**
 - Condition Requirements to Update Records:** All Conditions Are Met (AND)

At the bottom right of the configuration screen are 'Cancel' and 'Done' buttons, and a small note: 'Update Records Update_WasteBin_Status'.

Below the configuration screen is the flow canvas. It shows a sequence of elements connected by arrows:

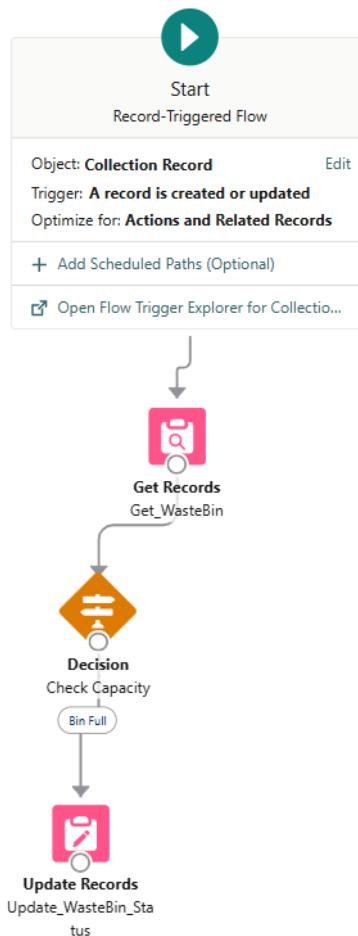
- A green circle icon labeled 'Start Record-Triggered Flow'.
- An orange square icon labeled 'Get Records Get_WasteBin'.
- A yellow diamond icon labeled 'Decision Check Capacity'.
- A pink square icon labeled 'Update Records Update_WasteBin_Status'.

At the bottom of the canvas are standard flow editor controls: a magnifying glass for search, a minus sign for delete, and a plus sign for add.

Step 6: Connect Flow Elements

- Connect elements as follows:

Start → Get_WasteBin → Check Capacity → Update_WasteBin_Status → End



Step 7: Save & Activate Flow

- Flow Label: WasteBin_Status_Update_Flow.
- API Name: WasteBin_Status_Update_Flow.
- Click **Save & Activate**.



Final Outcome (Phase 6 Completion)

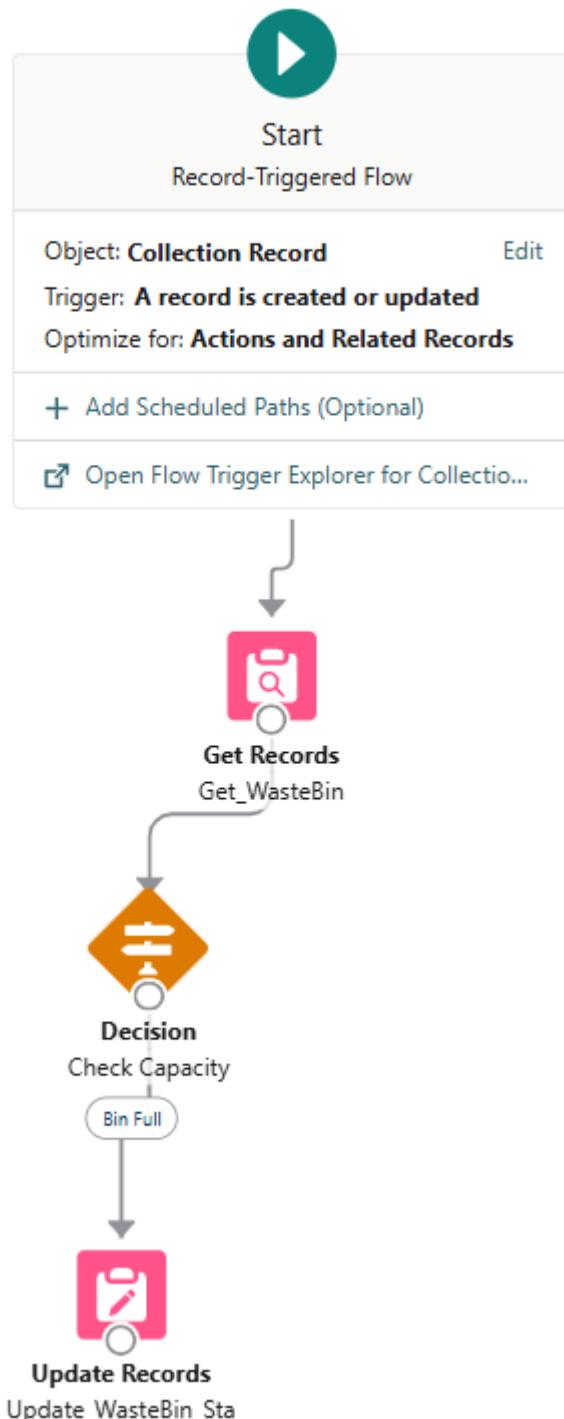
- A **Record-Triggered Flow** is created and activated.
- When a **Collection Record** is added, the related **Waste Bin** status updates automatically.
- Flow tested successfully without errors or warnings.



Errors and Warnings

Errors (0) Warnings (0)

You have 0 errors.



Smart Waste Management Tracker – Salesforce Project

Phase 7: Reports & Dashboards

Objective:

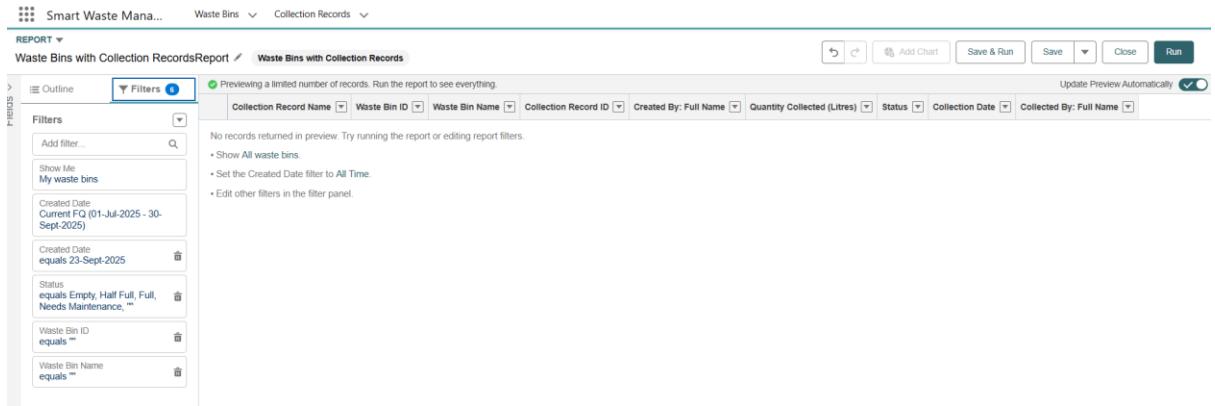
Create reports and dashboards to monitor Waste Bin status, collection quantities, and trends. Visual insights for management.

Step 1: Use Existing Custom Report Type

- Go to **Setup → Report Types**
- Search and open **Waste Bins with Collection Records**
- Confirm fields included:
 - Waste Bin Name
 - Status
 - Capacity
 - Collection Date
 - Quantity Collected
- Existing report type reused for Phase 7

The screenshot shows the Salesforce Setup interface with the 'Custom Report Types' page open. The search bar at the top has 'repo' typed into it. The main area displays a list of custom report types, each with a label, name, description, category, creation date, and edit/delete icons. The 'Report Types' category is selected in the sidebar. The list includes reports for Bot Metrics, Login History, Orchestration, and Program Definition.

Label	Name	Description	Category	Created
Bot Metrics Daily Spring '24	Bot_Metrics_Daily_v6	Einstein Bot metrics aggregated by day.	Other Repor...	17/09/2025, 11:05 pm
Bot Metrics Hourly Spring '24	Bot_Metrics_Hourly_v6	Einstein Bot metrics aggregated by hour.	Other Repor...	17/09/2025, 11:05 pm
Login History for Experience Cloud Site Users	prm_total_portal_login_crt	Report on the login history of your Experience Cloud site users.	Other Repor...	17/09/2025, 11:05 pm
Orchestration Run Logs Spring '24	flow_orchestration_log_oottb_crt_two_four_eight	Find out which orchestration run logs were created and what hap...	Other Repor...	17/09/2025, 11:05 pm
Orchestration Runs Spring '24	flow_orchestration_run_oottb_crt_two_four_eight	Find out which orchestration runs were created.	Other Repor...	17/09/2025, 11:05 pm
Orchestration Stage Runs Spring '24	flow_orchestration_stage_run_oottb_crt_two_four_eight	Find out which orchestration stage runs were created and the curr...	Other Repor...	17/09/2025, 11:05 pm
Orchestration Step Runs Spring '24	flow_orchestration_step_run_oottb_crt_two_four_eight	Find out which orchestration step runs were created and the curr...	Other Repor...	17/09/2025, 11:05 pm
Orchestration Work Items Spring '24	flow_orchestration_work_item_oottb_crt_two_four_eig...	Find out which orchestration work items were created, who's the a...	Other Repor...	17/09/2025, 11:05 pm
Partner Fund Requests	prm_partner_fund_request_crt	Report on market development fund requests from partners.	Other Repor...	17/09/2025, 11:05 pm
Partner Fund Requests and Partner Fund Claims	MDF_Claim_Request_Crt	Report on market development fund requests and fund claims fro...	Other Repor...	17/09/2025, 11:05 pm
Partner Marketing Budgets	prm_partner_marketing_budget_crt	Report on your partner marketing budgets, including budget amo...	Other Repor...	17/09/2025, 11:05 pm
Program Definition Spring '24	Program_Definition_sfdcSESV60	Review your analytics with a program-like structure. See each prog...	Other Repor...	17/09/2025, 11:05 pm
Program Definition Summer '24	Program_Definition_sfdcSESV61	Review your analytics with a program-like structure. See each prog...	Other Repor...	17/09/2025, 11:05 pm
Program Item Progress Spring '24	Program_Task_Progress_sfdcSESV60	Report on tasks like exercises, milestones, and outcomes progress...	Other Repor...	17/09/2025, 11:05 pm
Program Item Progress Summer '24	Program_Task_Progress_sfdcSESV61	Report on tasks like exercises, milestones, and outcomes progress...	Other Repor...	17/09/2025, 11:05 pm



Step 2: Create Report

- App Launcher → Reports → **New Report**
- Select Report Type: **Waste Bins with Collection Records**
- Add Columns:
 - Waste Bin Name
 - Status
 - Capacity
 - Collection Date
 - Quantity Collected
 - Collected By
- Filters: Created Date = All Time
- Run report to verify data

Screenshot Placeholder: Phase7_Report_Columns.png

Caption: Figure 1 – Columns added to report

Custom Report Types

Waste Bins with Collection Records

Below is the information for this custom report type. You can click the buttons on this to preview or update information for the custom report type.

Details

- Display Label:** Waste Bins with Collection Records
- API Name:** Waste_Bins_with_Collection_Records
- Description:** This report type allows users to view Waste Bins along with their related Collection Records, including status, location, and quantities collected.
- Created By:** Kiran kumar Thati, 9/23/25, 6:17 PM
- Store in Category:** other
- Deployment Status:** Deployed
- Modified By:** Kiran kumar Thati, 9/24/25, 9:44 PM

Object Relationships

Waste Bins (A) with or without related records from Collection Records (B)

A Venn diagram showing overlapping sets A and B. Below it is a diagram showing two parallel horizontal bars labeled A and B.

REPORT

Waste Bins with Collection Records Report

Fields

- Groups**: Add group...
- Columns**: Add column...
- Collection Record Name**
- Waste Bin ID**
- Waste Bin Name**
- Collection Record ID**
- Created By: Full Name**
- # Quantity Collected (Litres)**
- Status**
- Collection Date**
- Collected By: Full Name**

Filters

- Collection Record Name
- Waste Bin ID
- Waste Bin Name
- Collection Record ID
- Created By: Full Name
- Quantity Collected (Litres)
- Status
- Collection Date
- Collected By: Full Name

Previewing a limited number of records. Run the report to see everything.

No records returned in preview. Try running the report or editing report filters.

- Show All waste bins.
- Set the Created Date filter to All Time.
- Edit other filters in the filter panel.

Update Preview Automatically

Save & Run Save Close Run

Step 3: Save Report

- Report Name: **Phase 7 – Waste Bin Collection Report**
- Folder: Private Reports (or Public if allowed)
- Report ready for dashboard use

Screenshot Placeholder: Phase7_Save_Report.png

Caption: Figure 2 – Report saved in Private Reports

Smart Waste Mana... Waste Bins Collection Records

Reports Recent 1 item

REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	Waste Bins with Collection Records Report	Shows all Waste Bins along with their related Collection Records, including quantities collected and status.	Public Reports	Kiran kumari Thati	23/9/2025, 9:17 pm	<input type="checkbox"/>

Created by Me
Private Reports
Public Reports
All Reports
FOLDERS
All Folders
Created by Me
Shared with Me
FAVORITES
All Favorites

Step 4: Create Dashboard

- App Launcher → Dashboards → **New Dashboard**
- Name: **Smart Waste Management Dashboard**
- Layout/Theme: Adjust as needed

Screenshot Placeholder: Phase7_New_Dashboard.png

Caption: Figure 3 – Creating new dashboard

Smart Waste Mana... Waste Bins Collection Records

+ Widget

New Dashboard

*Name: Smart Waste Management Dashboard

Description

Folder: Private Dashboards

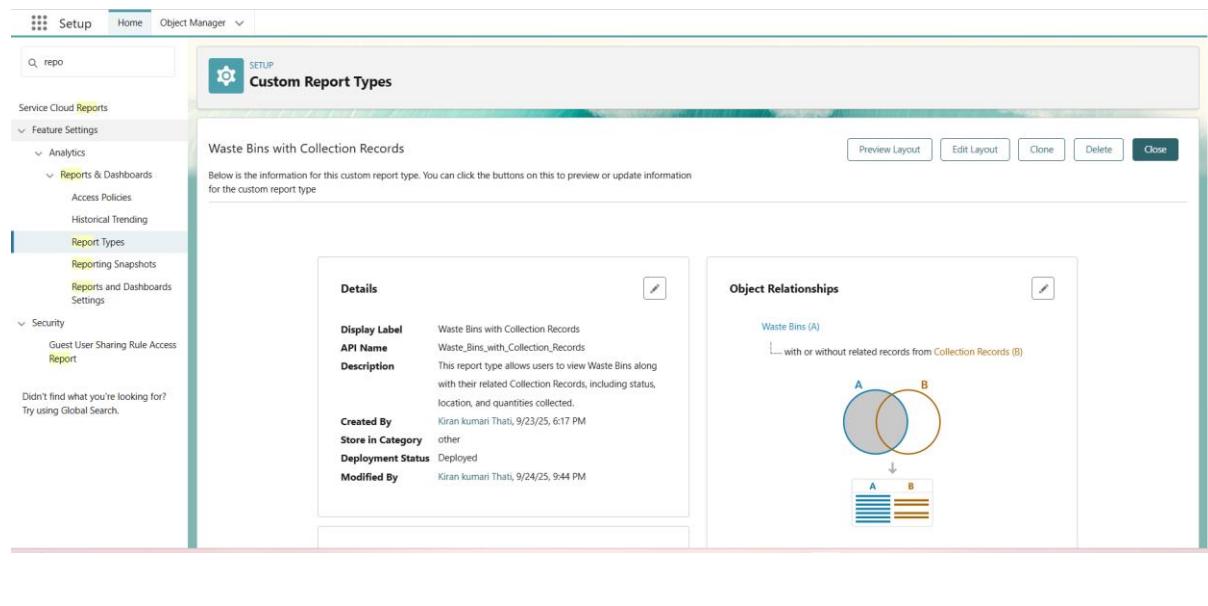
Step 5: Add Components

- Bar Chart:**
 - X-axis: Waste Bin Name
 - Y-axis: Quantity Collected
- Pie Chart:**
 - Waste Bin Status (Full / Not Full / Needs Maintenance)

- **Table:**
 - Show latest 5 Collection Records
 - Columns: Bin Name, Collection Date, Quantity, Status
- Data Source: Phase 7 Report

Screenshot Placeholder: Phase7_Dashboard_Components.png

Caption: Figure 4 – Components added to dashboard

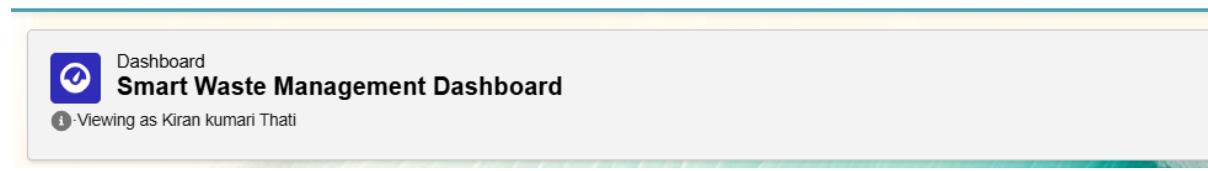


Step 6: Save & Refresh Dashboard

- Save dashboard
- Refresh → Charts & tables should display correctly with live data

Screenshot Placeholder: Phase7_Refresh_Dashboard.png

Caption: Figure 5 – Dashboard refreshed with live data



Step 7: Share Dashboard

- Open dashboard → Click **Share**
- Assign access to:
 - Collection Manager Role

- Public Group (if applicable)
- Verify visibility by logging in as another user (optional)

Screenshot Placeholder: Phase7_Share_Dashboard.png

Caption: Figure 6 – Dashboard shared with roles

Step 8: Optional Testing

- Add sample Collection Records
- Confirm report & dashboard update dynamically
- Fix any missing fields or filter issues

Screenshot Placeholder: Phase7_Testing.png

Caption: Figure 7 – Dashboard tested with sample data

Expected Outcome

- Reports display Waste Bin status, quantities collected, and collection trends
- Dashboard visualizes data for quick management insights
- Authorized users can view dashboard

Smart Waste Management Tracker – Salesforce Project

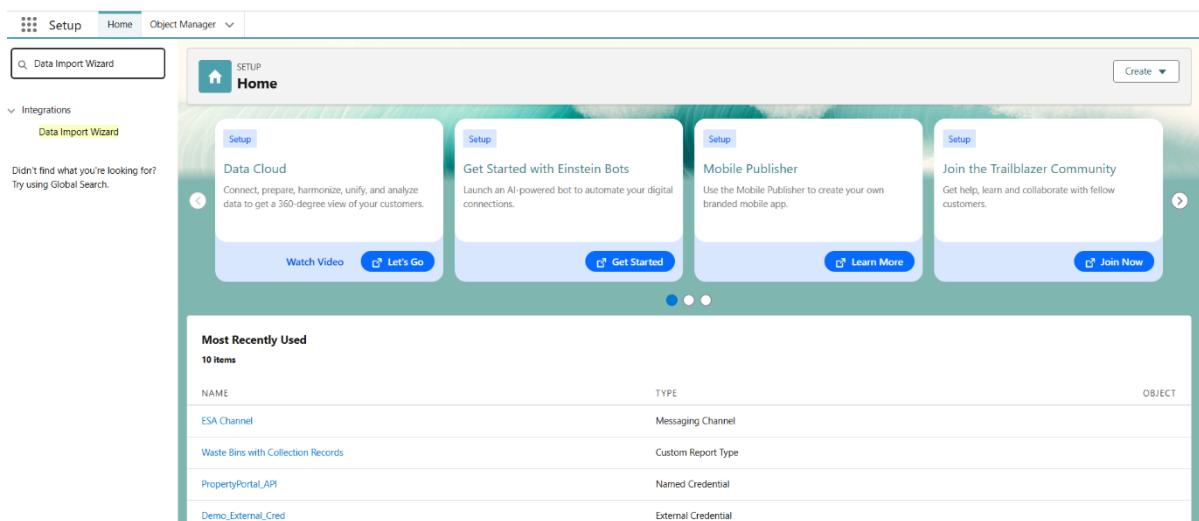
Phase 8 – Data Management & Deployment

Step 1: Prepare Data for Import

- Clean your data file (Excel / Google Sheets) → remove duplicates, ensure correct formats.
- Ensure field names in CSV match Salesforce field API names.
- Example objects for import: WasteBin__c, CollectionRecord__c.

Tips:

- Limit each import to ≤50,000 records.
- Save CSV file properly, UTF-8 format recommended.



The screenshot shows the Salesforce Setup Home page. In the top left, there's a sidebar with 'Data Import Wizard' under 'Integrations'. The main area features a 'Setup Home' banner with four cards: 'Data Cloud', 'Get Started with Einstein Bots', 'Mobile Publisher', and 'Join the Trailblazer Community'. Below the banner is a section titled 'Most Recently Used' with a table showing recent items like 'ESA Channel', 'Waste Bins with Collection Records', 'PropertyPortal_API', and 'Demo_External_Cred'. At the bottom, there are two tables: one for 'WasteBin__c' data (Name, Location, Type, Capacity, Status) and another for 'CollectionRecord__c' data (Name, Quantity, Collection, Collected By).

A	B	C	D	E	F
1	Name	Location	Type	Capacity	Status
2	Bin A	Area 1	Organic	100	Not Full
3	Bin B	Area 2	Recyclable	150	Not Full
4	Bin C	Area 3	Non-Recyc	120	Full
5					
6					
7					
8					

A	B	C	D	E	F
1	Name	WasteBin__c	Quantity	Collection	Collected By
2	Collection	Bin A	50	#####	Staff 1
3	Collection	Bin B	100	#####	Staff 2
4	Collection	Bin C	120	#####	Staff 3
5					

Step 2: Use Data Import Wizard

- Go to Setup → Quick Find → Data Import Wizard → Launch Wizard.

- Select object type: Standard or Custom (e.g., WasteBin__c, CollectionRecord__c).
- Choose operation:
 - Add new records
 - Update existing records
 - Add & Update existing records (Upsert)
- Map CSV columns → Salesforce fields carefully.
- Optional: Trigger workflow rules or processes if needed.

Setup Home Object Manager

Data Import Wizard

Recent Import Jobs

Status	Object	Records Created	Records Updated	Records Failed	Start Date	Processing Time (ms)

Bulk API Monitoring

Before you import your data...



Clean up your data import file
You'll have fewer errors to resolve if your data file is clean and free of duplicates. [Watch video](#)

Make sure your field names match Salesforce field names
You'll be required to map your data fields to Salesforce data fields. Data in unmapped fields is not imported. [View a list of Salesforce data fields](#).

Don't import too many records at once
Using the Data Import Wizard, import up to 50,000 records at a time. Importing too many records can slow down your org for all users, especially during periods of peak usage.

Import your data in 3 easy steps!

Launch the Data Import Wizard to import your data.



Pre-step: Prepare your data Choose data to import Edit field mapping Review and start import

Step 3: Upload CSV

- Drag & drop CSV file or browse to upload.
- Confirm field mapping:
 - Required fields mapped correctly
 - Lookup / External ID fields mapped if using Upsert

- Click **Next → Start Import**.
- Monitor import progress in **Recent Import Jobs** section.

The screenshot shows the Salesforce Data Import Wizard Step 1: Choose Data. At the top, there are two Excel spreadsheets:

- Sheet 1 (Top):** Contains data for bins. The columns are Name, Location, Type, Capacity, and Status. The data rows are:

Name	Location	Type	Capacity	Status
Bin A	Area 1	Organic	100	Not Full
Bin B	Area 2	Recyclable	150	Not Full
Bin C	Area 3	Non-Recyclable	120	Full
- Sheet 2 (Bottom):** Contains data for waste bin collection. The columns are Name, WasteBin_Quantity, and Collection_Collected_By. The data rows are:

Name	WasteBin_Quantity	Collection_Collected_By
Collection Bin A	50	Staff 1
Collection Bin B	100	Staff 2
Collection Bin C	120	Staff 3

The main interface below the spreadsheets includes tabs for Setup, Home, Object Manager, and a progress bar with steps: Let's do this, Choose data, Edit mapping, and Start import. There are also buttons for Cancel, Previous, and Next.

Step 4: Verify Imported Data

- Check import status: Success / Failures.
- Open **View Result** for failed records → identify issues (field mismatch, missing required fields, validation rule failure).
- Correct CSV and re-import if needed.

Edit Field Mapping: Accounts and Contacts

Your file has been auto-mapped to existing Salesforce fields, but you can edit the mappings if you wish. Unmapped fields will not be imported.

Help for this page [?](#)

Edit	Mapped Salesforce Object	CSV Header	Example	Example	Example
Change	Account: Account Name	Name	Bin A	Bin B	Bin C
Change	Account: Number of Locations	Location	Area 1	Area 2	Area 3
Change	Account: Type	Type	Organic	Recyclable	Non-Recyclable
Change	Account: Rating	Capacity	100	150	120
Change	Account: Clean Status	Status	Not Full	Not Full	Full

Step 5: Bulk Data Load (Advanced / Large Records)

- For >50,000 records, use **Data Loader**:
 - Install Salesforce Data Loader (Windows/Mac)
 - Login → Select Object → Operation (Insert / Update / Upsert)
 - Map fields → Run job
 - Review **success & error CSV files** for troubleshooting

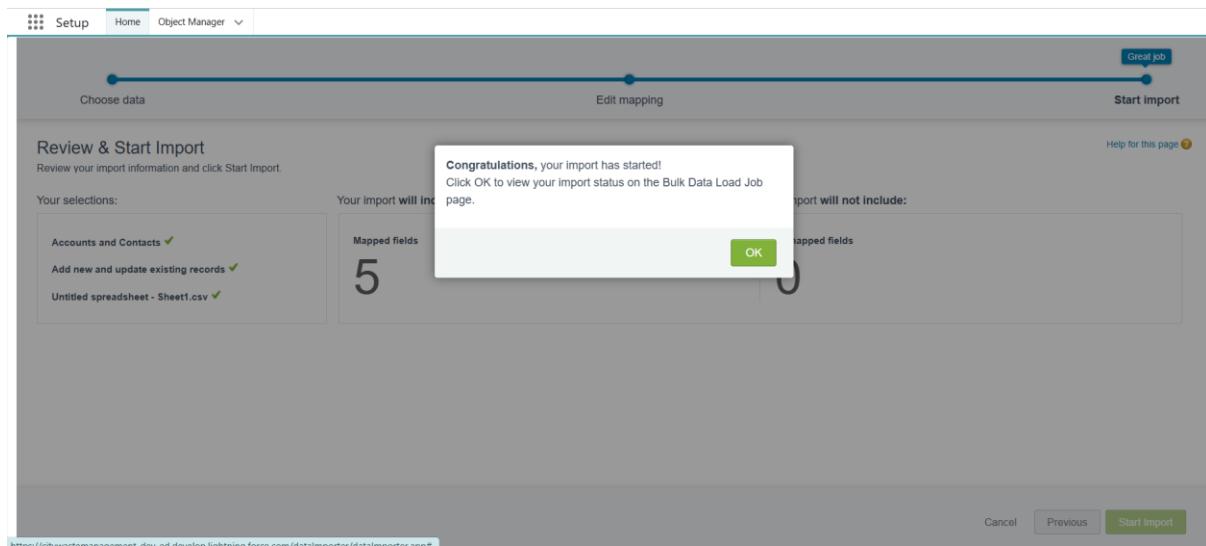
Review & Start Import

Review your import information and click Start Import.

Help for this page [?](#)

Your selections:	Your import will include:	Your import will not include:
Accounts and Contacts ✓ Add new and update existing records ✓ Untitled spreadsheet - Sheet1.csv ✓	Mapped fields 5	Unmapped fields 0

Cancel Previous **Start Import**



Step 6: Deployment Basics

- Use **Change Sets, ANT Migration Tool, or VS Code + SFDX** for moving configurations from Dev/Sandbox → Production.
- Steps:
 1. Create Outbound Change Set (Sandbox) → add components (Objects, Flows, Reports, Dashboards, etc.)
 2. Upload → Deploy to Production
 3. Validate deployment → Test functionality in Production

The screenshot shows the 'Bulk Data Load Jobs' detail page for a job with ID 750NS00000Wmv81. The page includes a summary table and detailed logs for the job's execution.

Job ID	750NS00000Wmv81	Submitted By	Kiran Kumar Thall	Job Type	Bulk V1	Status	Closed
Start Time	24/09/2025, 10:58 pm IST	Operation	Upsert	Total Processing Time (ms)	245	API Active Processing Time (ms)	0
End Time	24/09/2025, 10:58 pm IST	Queued Batches	0	Apex Processing Time (ms)	0		
Time to Complete (hh:mm:ss)	00:00	In Progress Batches	0				
Object	Account	Completed Batches	1				
External ID Field	Id	Failed Batches	0				
Content Type	CSV	Progress	100%				
Concurrency Mode	Parallel	Records Processed	3				
API Version	64.0	Records Failed	3				
		Retries	0				

Step 7: Expected Outcome

- Data for WasteBins and CollectionRecords imported successfully.

- Deployment to production environment completed.
- Org ready for Phase 9: Reporting, Dashboards & Security Review.

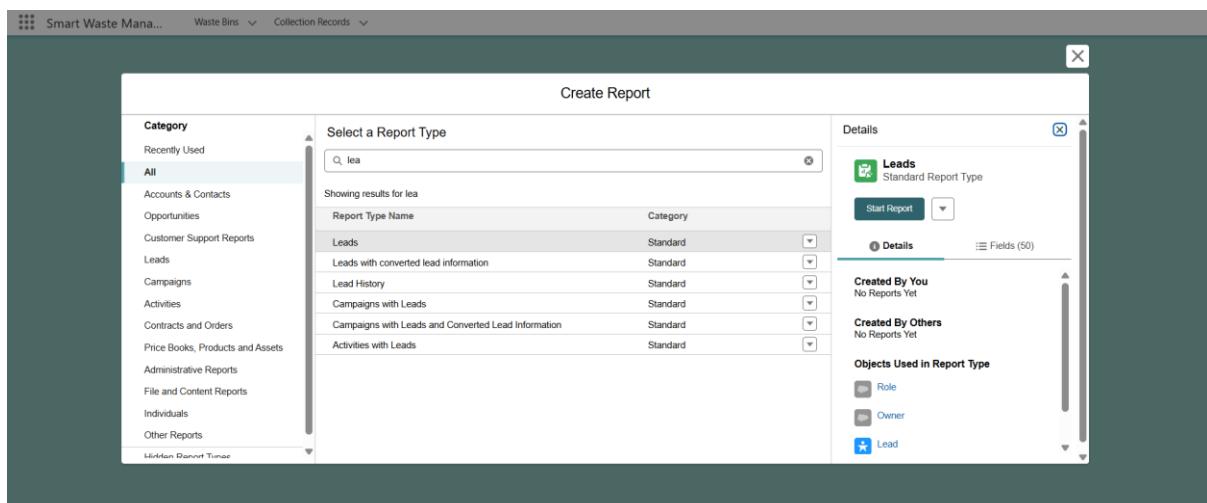
Smart Waste Management Tracker – Salesforce Project

Phase 9 – Reporting, Dashboards & Security Review

Step 1: Create Reports

1. Leads Report

- Go to Reports → New Report
- Select **Lead** object
- Add Fields:
 - Lead Name
 - Status
 - Assigned Agent
 - Created Date
- Filters:
 - Status = All
 - Created Date = All Time
- Save Report:
 - Report Name: Leads Report – Phase 9
 - Folder: Private Reports (or Public if allowed)
- Run Report to verify data



2. Property Visits Report

- Go to **Reports → New Report**
- Select **Property Visits** object
- Add Fields:
 - Property Name
 - Customer Name
 - Visit Date
 - Status
 - Assigned Agent
- Filters: All Time
- Save Report:
 - Report Name: Property Visits Report – Phase 9

REPORT ▾

New Leads Report  **Leads**

Fields > **Outline**  Filters 4

Groups

GROUP ROWS

Add group... 

Columns

Add column... 

First Name	
Last Name	
Title	
Company / Account	
Email	
Lead Source	
Street	
Rating	
Lead Owner	
Lead Status	
Lead Owner Alias	
Lead ID	

REPORT ▾

New Leads Report Leads

Fields >
Outline Filters 4

Filters

Add filter...

Show Me My leads

Create Date
On or after 17-Sept-2025

Create Date
equals ""

Lead Status
equals Open - Not Contacted,
Working - Contacted, Closed
- Converted, Closed - Not
Converted, ""

REPORT ▾
New Leads Report / Leads
Save & Run
Save Close Run

Previewing a limited number of records. Run the report to see everything.

Save Report

*Report Name: New Leads Report

Report Unique Name: New_Leads_Report_mgW

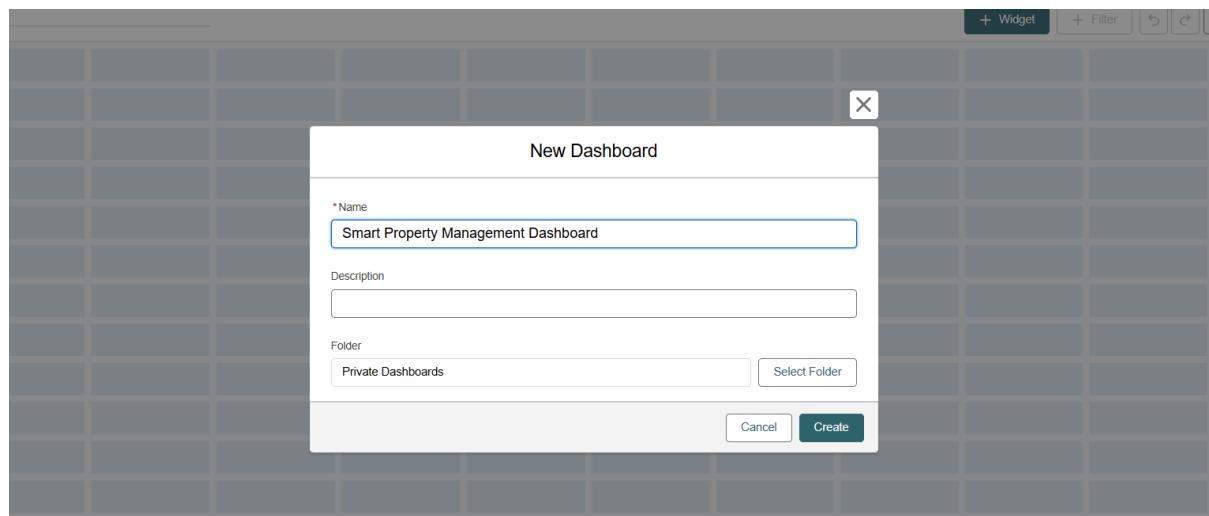
Report Description: Report to track all new leads with status and assigned agents.

Folder: Public Reports

Step 2: Create Dashboard

1. Go to Dashboards → New Dashboard
2. Name: Phase 9 – Leads & Visits Dashboard
3. Folder: Private / Public

4. Click **Create**



Step 3: Add Components

Bar Chart

- Data Source: Leads Report – Phase 9
- X-axis: Agent Name
- Y-axis: Number of Leads

Pie Chart

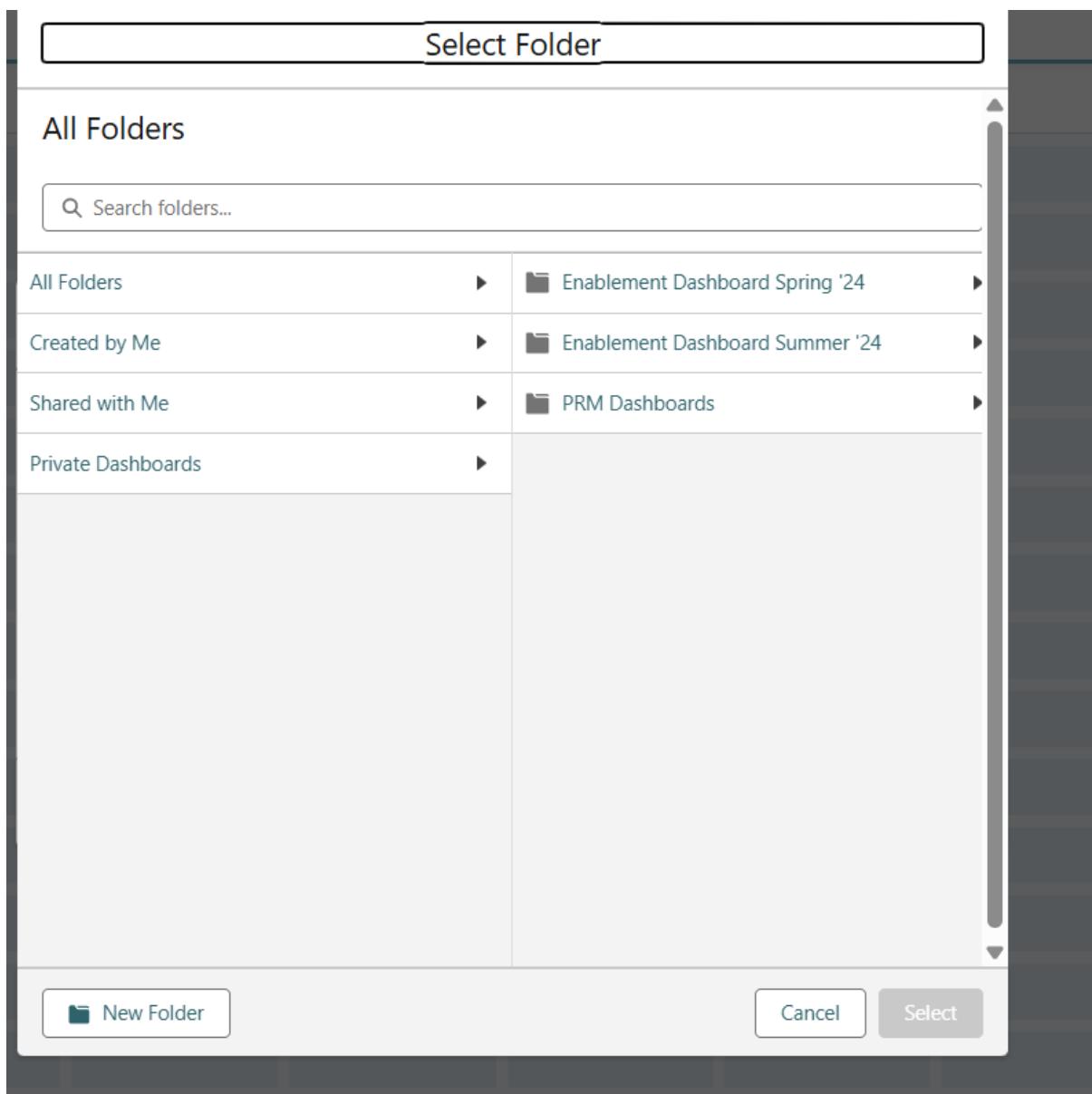
- Data Source: Leads Report – Phase 9
- Segments: Lead Status (New, Contacted, Qualified, Converted)

Table

- Data Source: Property Visits Report – Phase 9
- Columns: Property, Customer, Visit Date, Status, Assigned Agent
- Limit: Show latest 5–10 records

Optional Funnel Chart

- Data Source: Leads Report – Phase 9
- Stage: Lead conversion funnel
- Adjust layout, size, and theme as needed
- Click **Save** → **Refresh** to verify charts



Step 4: Share & Security

- Open Dashboard → Click **Share**
- Share with Profiles / Roles:
 - Sales Agents
 - Property Managers
- Verify visibility by logging in as a user with assigned role
- Confirm users can view and interact with charts

Home > Lightning Report



Report: Leads
New Leads Report
Report to track all new leads with status and assigned agents.

Step 5: Expected Outcome

- Reports created for Leads and Property Visits
- Dashboard visualizes:
 - Leads per Agent
 - Lead Status distribution
 - Latest Property Visits
 - Optional Lead Funnel
- Users with correct permissions can view dashboards
- Management can track sales & engagement trends easily

Smart Waste Management Tracker – Salesforce Project

Phase 10 – Final Presentation & Demo Day

Goal

- Showcase the complete Salesforce implementation.
- Demonstrate functionality, automation, reports, dashboards, and data management.
- Collect feedback and prepare handoff documentation.

The screenshot shows the Salesforce Setup Home page. On the left, there's a sidebar with links like Setup Home, Salesforce Go, Service Cloud Reports, and others. The main area has four cards: Data Cloud, Get Started with Einstein Bots, Mobile Publisher, and Join the Trailblazer Community. Below these is a section titled 'Most Recently Used' with a table showing items like 'ESA Channel' (Messaging Channel), 'Smart Waste Management UtilityBar' (Lightning Page), 'Collection Records' (Custom Tab Definition), and 'Waste Bins' (Custom Tab Definition). A 'Create' button is at the top right.

Step 1: Prepare Demo Data

- Add sample Leads, Accounts, Properties, Waste Bins, Collection Records, etc.
- Ensure all automation (Flows, Workflows, Apex Triggers) is working as expected.
- Verify reports and dashboards reflect the sample data correctly.

The screenshot shows the Salesforce Object Manager for the 'Waste Bin' object. On the left, there's a sidebar with tabs like Details, Fields & Relationships, Page Layouts, and others. The main area has two columns: 'Details' and 'Fields & Relationships'. In the 'Details' column, there are fields for Description, API Name (set to 'Waste_Bin__c'), Singular Label ('Waste Bin'), and Plural Label ('Waste Bins'). In the 'Fields & Relationships' column, there are checkboxes for Enable Reports, Track Activities, Track Field History, Deployment Status (set to 'Deployed'), Help Settings, and a link to 'Standard salesforce.com Help Window'. There are 'Edit' and 'Delete' buttons at the top right of the main area.

Setup Home Object Manager

SETUP > OBJECT MANAGER
Collection Record

Details

Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Restriction Rules
Scoping Rules
Object Access
Triggers

Details

Description
API Name
Collection_Record_c
Custom
✓
Singular Label
Collection Record
Plural Label
Collection Records

Edit Delete

Enable Reports
✓
Track Activities
✓
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window

REPORT ▾New Leads Report  Leads

Fields > Outline Filters 4 

Groups

 GROUP ROWS

Add group... 

Columns 

Add column... 

First Name	
Last Name	
Title	
Company / Account	
Email	
Lead Source	
Street	
Rating	
Lead Owner	
Lead Status	
Lead Owner Alias	
Lead ID	

REPORT ▾New Leads Report  Leads

> Fields  Filters  4

Filters 

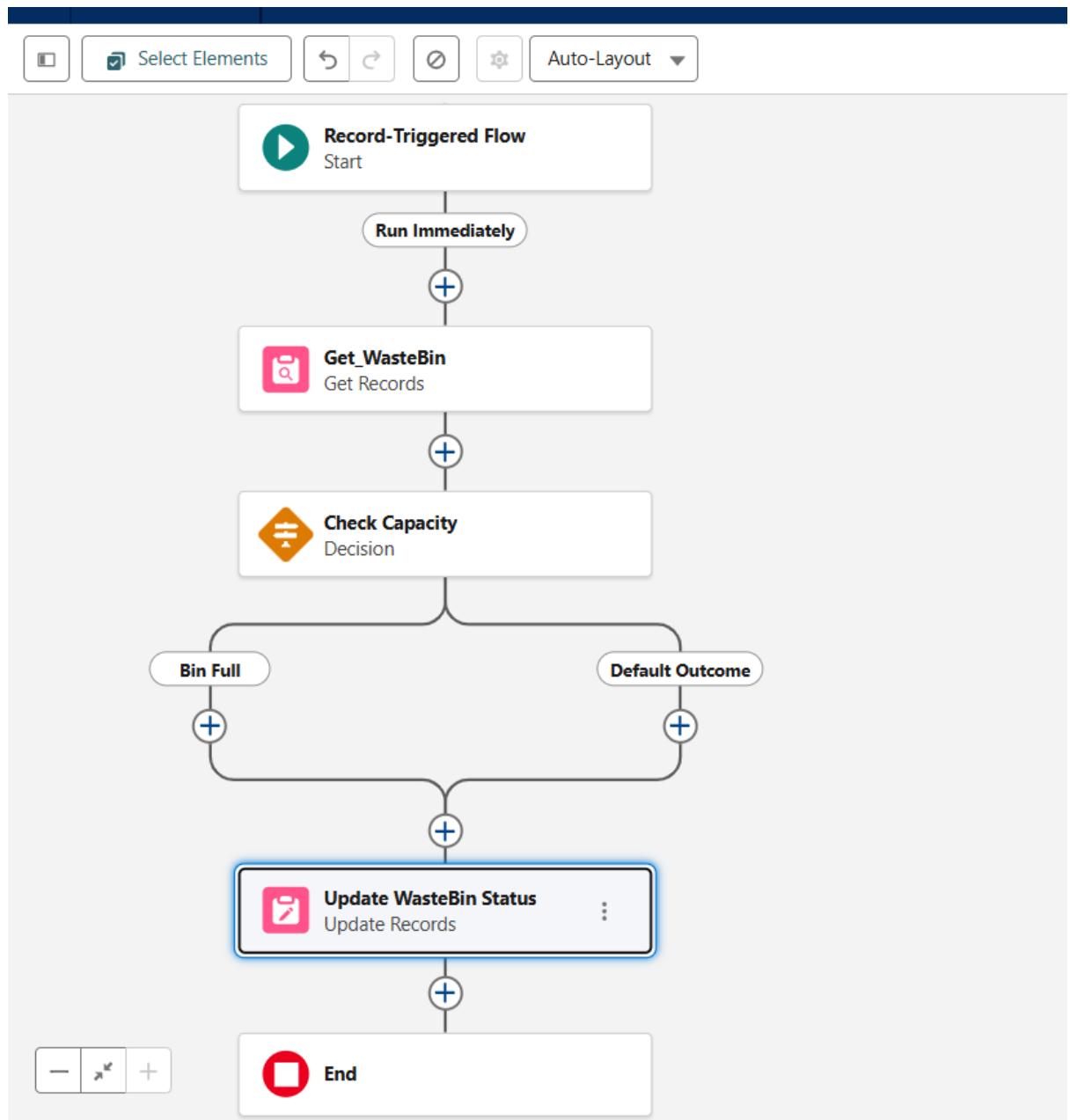
Add filter... 

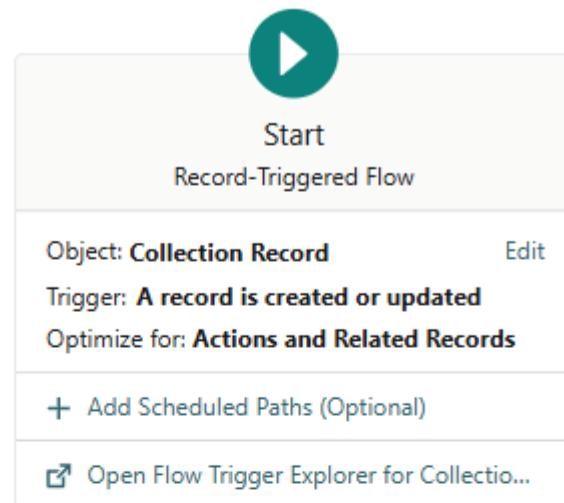
Show Me
My leads

Create Date
On or after 17-Sept-2025

Create Date
equals "" 

Lead Status
equals Open - Not Contacted,
Working - Contacted, Closed
- Converted, Closed - Not
Converted, "" 





Data Import Wizard

Help for this page 

Recent Import Jobs

Status	Object	Records Created	Records Updated	Records Failed	Start Date	Processing Time (ms)
--------	--------	-----------------	-----------------	----------------	------------	----------------------

Bulk API Monitoring



Before you import your data...

Clean up your data import file
You'll have fewer errors to resolve if your data file is clean and free of duplicates. [Watch video](#)

Make sure your field names match Salesforce field names
You'll be required to map your data fields to Salesforce data fields. Data in unmapped fields is not imported. [View a list of Salesforce data fields](#).

Don't import too many records at once
Using the Data Import Wizard, import up to 50,000 records at a time. Importing too many records can slow down your org for all users, especially during periods of peak usage.

Import your data in 3 easy steps!

Launch the Data Import Wizard to import your data.



Pre-step: Prepare your data



Choose data to import



Edit field mapping



Review and start import

Q Named Credentials

Security [Named Credentials](#)

Didn't find what you're looking for? Try using Global Search.

SETUP **Named Credentials**

[Named Credentials](#) External Credentials External Auth Identity Providers

1 Items - Sorted by Label

Label	Type	URL	External Credential
Weather Endpoint	Legacy	https://api.brightsky.dev	

Step 2: Test Key Features

- Lead capture, assignment, and qualification (Property Portal scenario).
- Property management: record creation, visit scheduling, status updates.
- Waste Management Tracker: bin status updates, collection automation.
- Dashboards: Bar, Pie, Table, Funnel charts update dynamically.

- Reports: Run summary, matrix, and joined reports to verify correctness.

The image consists of two screenshots of a software application interface, likely from a sales or management system. The top screenshot shows a modal dialog titled 'New Dashboard'. It contains fields for 'Name' (set to 'Smart Waste Management Dashboard'), 'Description' (empty), and 'Folder' (set to 'Private Dashboards'). There are 'Cancel' and 'Create' buttons at the bottom. The background shows a grid-based dashboard layout. The bottom screenshot shows another modal dialog titled 'New Named Credential'. It contains fields for 'Label' (set to 'PropertyPortal_API'), 'Name' (set to 'PropertyPortal_API'), 'URL' (set to 'https://example-propertyportal.com/api'), and 'Enabled for Callouts' (checked). It also includes sections for 'Authentication' (set to 'External Credential') and 'Callout Options' (with checkboxes for 'Generate Authorization Header' and 'Allow Formulas in HTTP Header'). There are 'Cancel' and 'Save' buttons at the bottom. The background shows a sidebar with 'Named Credentials' and a main area with a list of items.

Step 3: Demo Walkthrough

- Login as a sample user (Sales Agent / Property Manager / Collection Manager).
- Show navigation through objects, record creation, automation in action.
- Highlight dashboards and reports for quick decision-making.
- Explain role-based access and security settings.

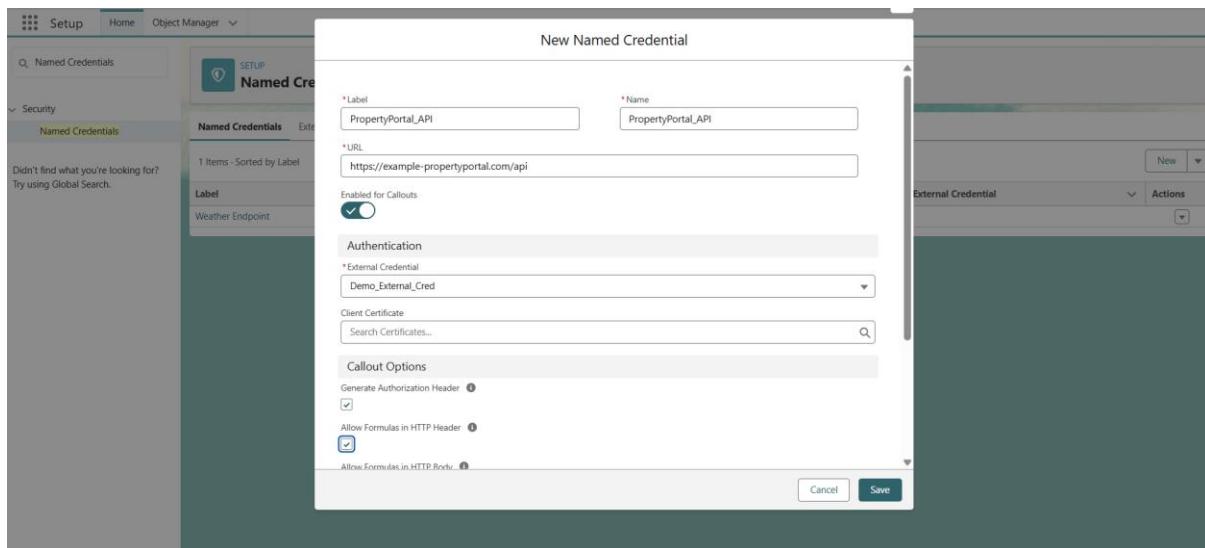
The screenshot shows the 'Reports and Dashboards Settings' page under the 'Reports & Dashboards' section of the Setup menu. The page title is 'Report and Dashboard User Interface Settings'. It includes sections for 'User Interface', 'Confidential Information Disclaimer Settings', 'Chart Options', and 'Unified Analytics Home'. Various checkboxes are listed under each section, such as 'Enable Floating Report Headers' and 'Exclude Disclaimer from Formatted Report Exports'. A 'Save' and 'Cancel' button are at the bottom.

The screenshot shows the 'Named Credentials' page under the 'Security' section of the Setup menu. It displays tabs for 'Named Credentials', 'External Credentials', and 'External Auth Identity Providers'. A modal window titled 'New External Credential' is open, showing fields for 'Label' (set to 'Demo_External_Cred'), 'Name' (set to 'Demo_External_Cred'), and 'Authentication Protocol' (set to 'Basic Authentication'). A 'Save' and 'Cancel' button are at the bottom of the modal.

Step 4: Feedback Collection

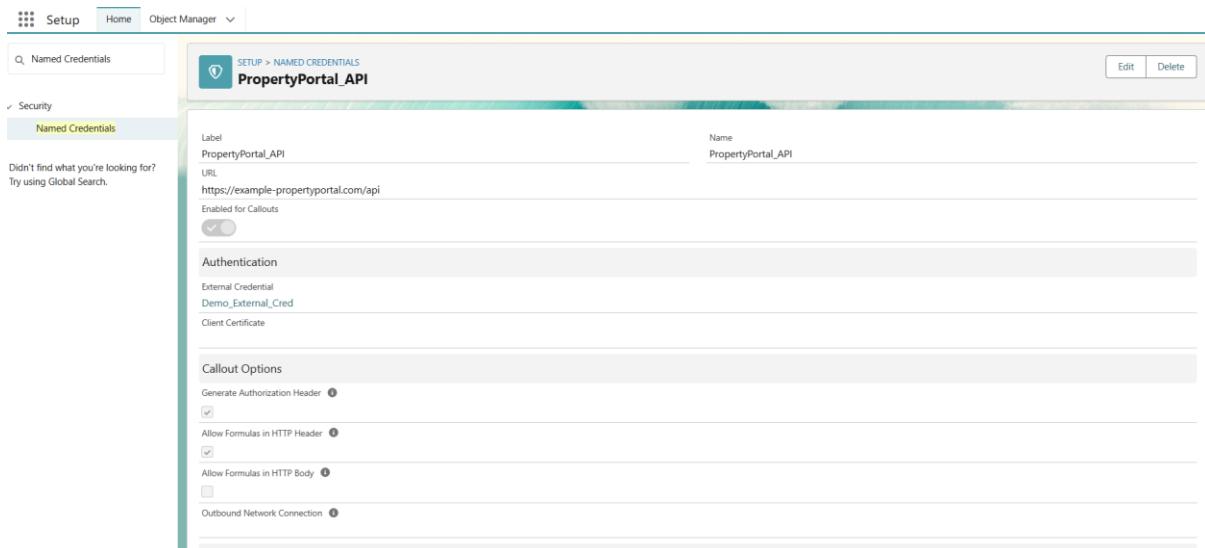
- Collect stakeholder or instructor feedback on functionality and UI.
- Note issues or suggestions for future improvements.

The screenshot shows the 'Account Settings' page under the 'Accounts' section of the Setup menu. It includes sections for 'General Settings', 'Contacts to Multiple Accounts Settings', and 'Person Accounts'. A note at the bottom says 'Manage settings from the Person Accounts page. [Edit Settings](#)'. An 'Edit' button is located at the bottom right of the page.



Step 5: Handoff Documentation

- Include:
 - Project summary and goals
 - List of objects, fields, relationships
 - Automation (Flows, Process Builders, Triggers)
 - Reports and Dashboards
 - Sample data snapshots
- Optional: link to Salesforce Sandbox / screenshots for portfolio.



Step 6: Portfolio / LinkedIn Showcase

- Summarize project achievements.
- Highlight Salesforce features implemented.
- Include screenshots or screen recordings.

The screenshot shows the LinkedIn Sales Navigator setup page. At the top, there's a search bar with 'linkedin' typed in. Below it, the 'SETUP' section for 'LinkedIn Sales Navigator' is visible. On the left, a sidebar lists 'Feature Settings' under 'Marketing' (including 'Lead Gen Fields' and 'LinkedIn Accounts') and 'Sales' (including 'LinkedIn Sales Navigator'). A message says 'Didn't find what you're looking for? Try using Global Search.' The main content area has a banner for 'LinkedIn Sales Navigator'. Below it, a section titled 'Choosing between the LinkedIn Sales Navigator native integration and the AppExchange package?' explains the differences. A table compares 'Features' across 'Native Integration' and 'AppExchange Package'. The table shows that Native Integration includes Lightning actions for InMails and connection requests, LinkedIn profile components on lead, contact, account, and opportunity pages, InMail and connection request steps in Sales Engagement cadences, Data validation (Not at Company flag), and Support for Salesforce Classic. The AppExchange Package includes a 'Tell Me More' button. At the bottom, there's a link to 'LinkedIn Sales Navigator Integration (New)' and another to 'LinkedIn Sales Navigator AppExchange Package'. A toggle switch is shown as 'Off'. The URL 'https://citywastemanagement-dev-ed.lightning.force.com/lightning/setup/linkedinSalesNavigatorPage/home' is also visible.

Expected Outcome

- Stakeholders can see end-to-end workflow.
- Project features, reports, dashboards, and automation are validated.
- Documentation ready for handoff or portfolio showcase.