PROJECT TITLE

GARAGE MANAGEMENT SYSTEM

COLLEGE NAME : MICHAEL JOB COLLEGE OF ARTS AND SCIENCE FOR WOMEN

COLLEGE CODE : BRU4Z

TEAM ID:NM2025TMID28668

TEAM MEMBERS : 4

TEAM LEADER:KARUNYASRI.E

EMAIL : srikaruya839@gmail.comEMAIL

TEAM MEMBER 1:MYTHILI.S

EMAIL : mythilimythili821@gmail.com

TEAM MEMBER 2 :DHANUSHIYA.R

EMAIL:rrdhanushiya@gmail.com

TEAM MEMBER 3 : deepanjali bhuyan

EMAIL :deepanjalibhuyan54@gmail.com

TITLE : GARAGE MANAGEMENT SYSTEM

USING SALESFORCE

Project Overview:

Salesforce is a cloud-based CRM platform that can be customized for a variety of business needs, including garage or service center management. With Salesforce, you can handle customer data, service requests, inventory management, billing, and more, all from a single platform.

Project Objectives

1. **To automate garage operations** – Reduce manual paperwork by digitizing customer, vehicle, and service records.
2. **To manage customer and vehicle details efficiently** – Maintain complete service history for each vehicle.
3. **To streamline appointment booking** – Avoid double bookings and send reminders to customers.
4. **To track service orders accurately** – Record labor, spare parts usage, and service status.
5. **To manage inventory effectively** – Update stock levels automatically and send low-stock alerts.
6. **To generate invoices automatically** – Calculate labor and parts cost, reducing billing errors.
7. **To provide real-time dashboards and reports** – Help managers analyze revenue, service trends, and inventory status.
8. **To implement secure role-based access** – Allow only authorized users (Admin, Mechanic, Receptionist) to perform specific actions.
9. **To improve customer satisfaction** – By ensuring faster service, accurate billing, and timely communication.
10. **To create a scalable cloud-based solution** – That can be extended with new features like online booking, mobile apps, and payment integration.

Student Outcomes

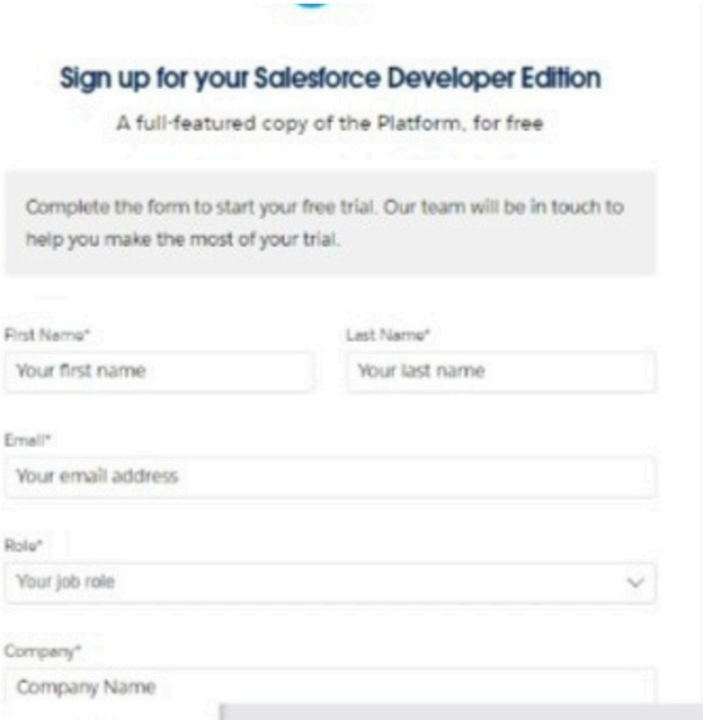
1. **Practical Knowledge in Salesforce CRM**
   - Students gain hands-on experience in creating custom objects, fields, and relationships.
2. **Skill in Business Process Automation**
   - Ability to design Flows, validation rules, and automation for real-world scenarios.
3. **Understanding of Data Modeling**
   - Learned how to design ER diagrams and connect entities like Customer, Vehicle, Service Order, and Invoice.
4. **Experience in Cloud Application Development**
   - Developed a cloud-based solution accessible anytime, anywhere, instead of a traditional local system.
5. **Improved Problem-Solving Skills**
   - Identified challenges in manual garage management and applied digital solutions.
6. **Knowledge of Security and User Roles**
   - Implemented role-based access using Profiles and Permission Sets.
7. **Reporting & Analytics Skills**
   - Created reports and dashboards to analyze garage performance and make data-driven decisions.
8. **Teamwork and Collaboration**
   - Worked as a team to gather requirements, design, build, and test the system.
9. **Presentation & Documentation Skills**
   - Prepared professional project documentation and demonstrated the system effectively.
10. **Career Readiness**

- Acquired skills relevant for Salesforce Admin/Developer roles, increasing job opportunities. **System Requirement**
- **1. Hardware Requirements**
- **Minimum:**
- Processor: Intel i3 / AMD equivalent
- RAM: 4 GB
- Storage: 250 GB HDD
- Monitor: 1024 × 768 resolution
- Internet Connection: 2 Mbps
- **Recommended:**
- Processor: Intel i5 or higher

- RAM: 8 GB or higher
- Storage: 500 GB HDD / SSD
- Monitor: Full HD (1920 × 1080)
- Internet Connection: 10 Mbps broadband (stable for Salesforce Cloud access)
-
- **2. Software Requirements**
- **Operating System:** Windows 10 / 11, macOS, or Linux (any modern OS with browser support)
- **Browser:** Google Chrome (latest), Mozilla Firefox, Microsoft Edge, or Safari
- **Salesforce Platform:** Salesforce Developer Edition / Trailhead Playground (free)
- **IDE/Tools (Optional):**
- VS Code with Salesforce Extensions (for Apex/Lightning development)
- Lucidchart / Draw.io (for ER diagrams & DFDs)
- Microsoft Office / Google Docs (for documentation & reports)
-
- **3. User Requirements**
- Basic knowledge of CRM concepts.
- Internet-enabled device (PC / Laptop / Tablet).
- Salesforce Developer Org login credentials.
-
- **4. Non-Functional Requirements**
- **Availability:** System accessible 24×7 (cloud-based).
- **Scalability:** Can support multiple garages and thousands of records.
- **Security:** Role-based access, data protection through Salesforce security model.
- **Performance:** Real-time updates for appointments, inventory, and billing.
- **Usability:** Simple Lightning UI, mobile-friendly

STEP 1: SALESFORCE SETUP

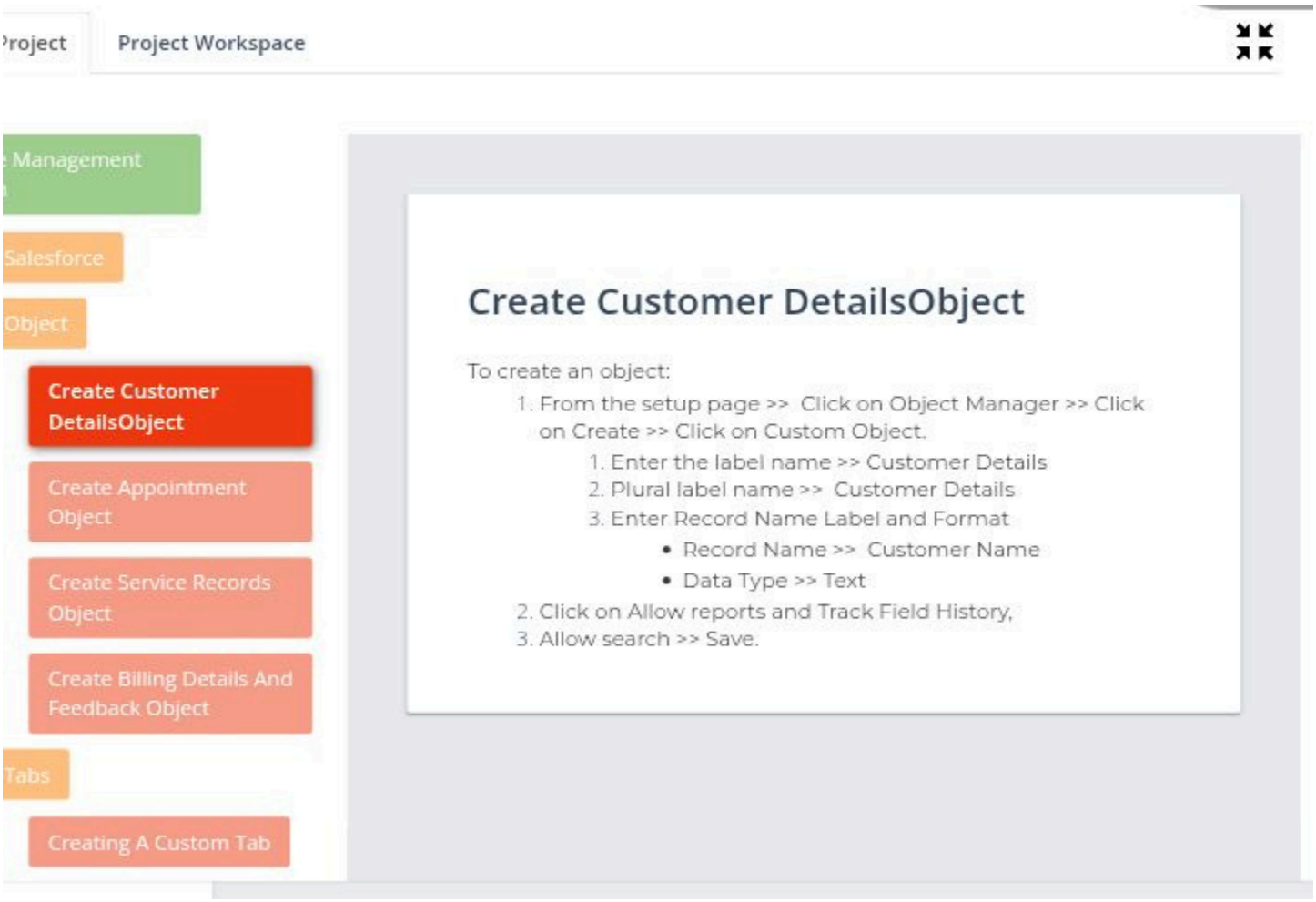
- **Create a Salesforce Developer Organization**
- **Enable the necessary permissions**
- **Set up profiles and users for the project**



STEP 2: Create Objects

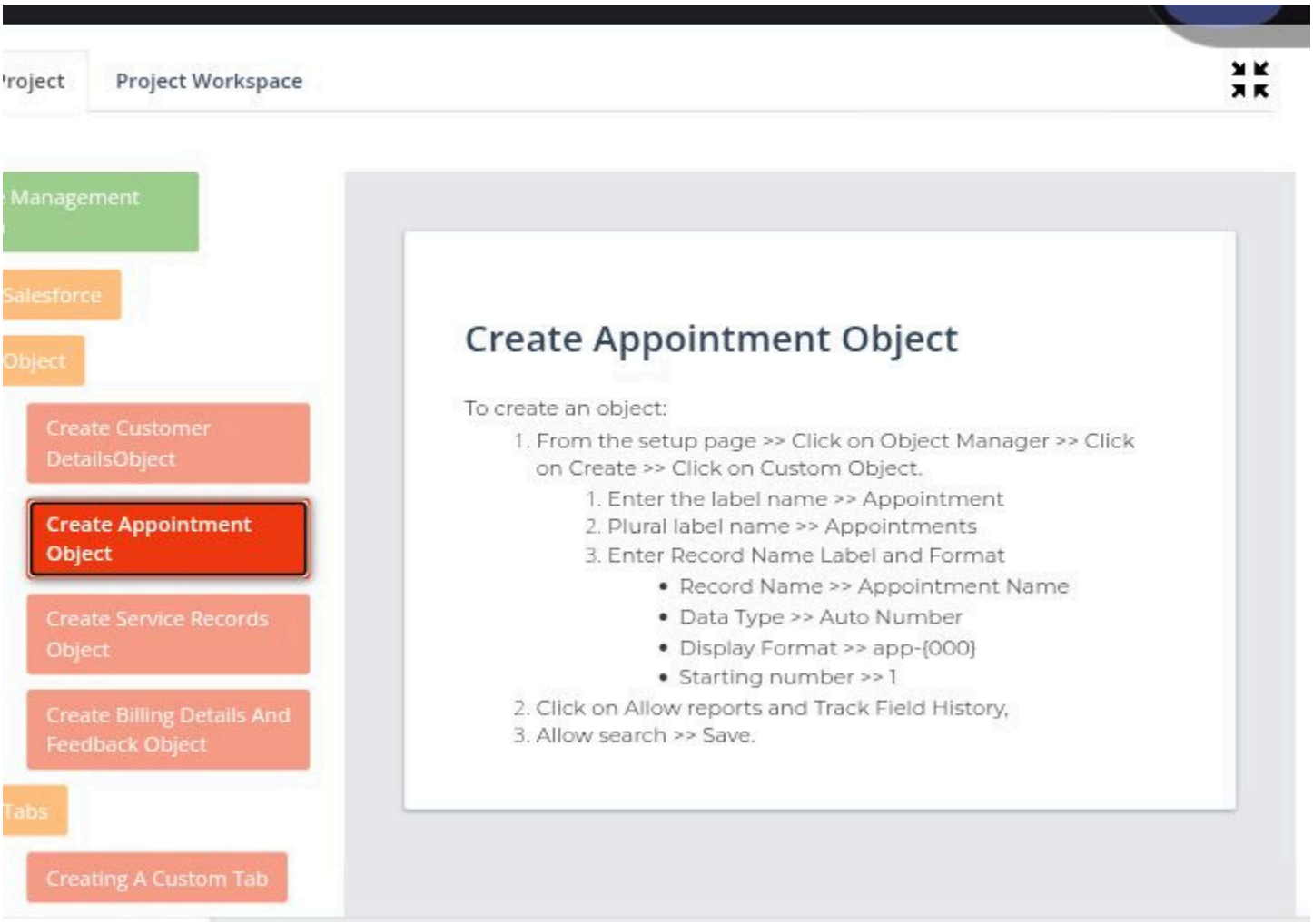
1. **Customer Details Object**

This object stores customer-related information such as name and contact details.
It helps in maintaining customer records for easy access and service reference.



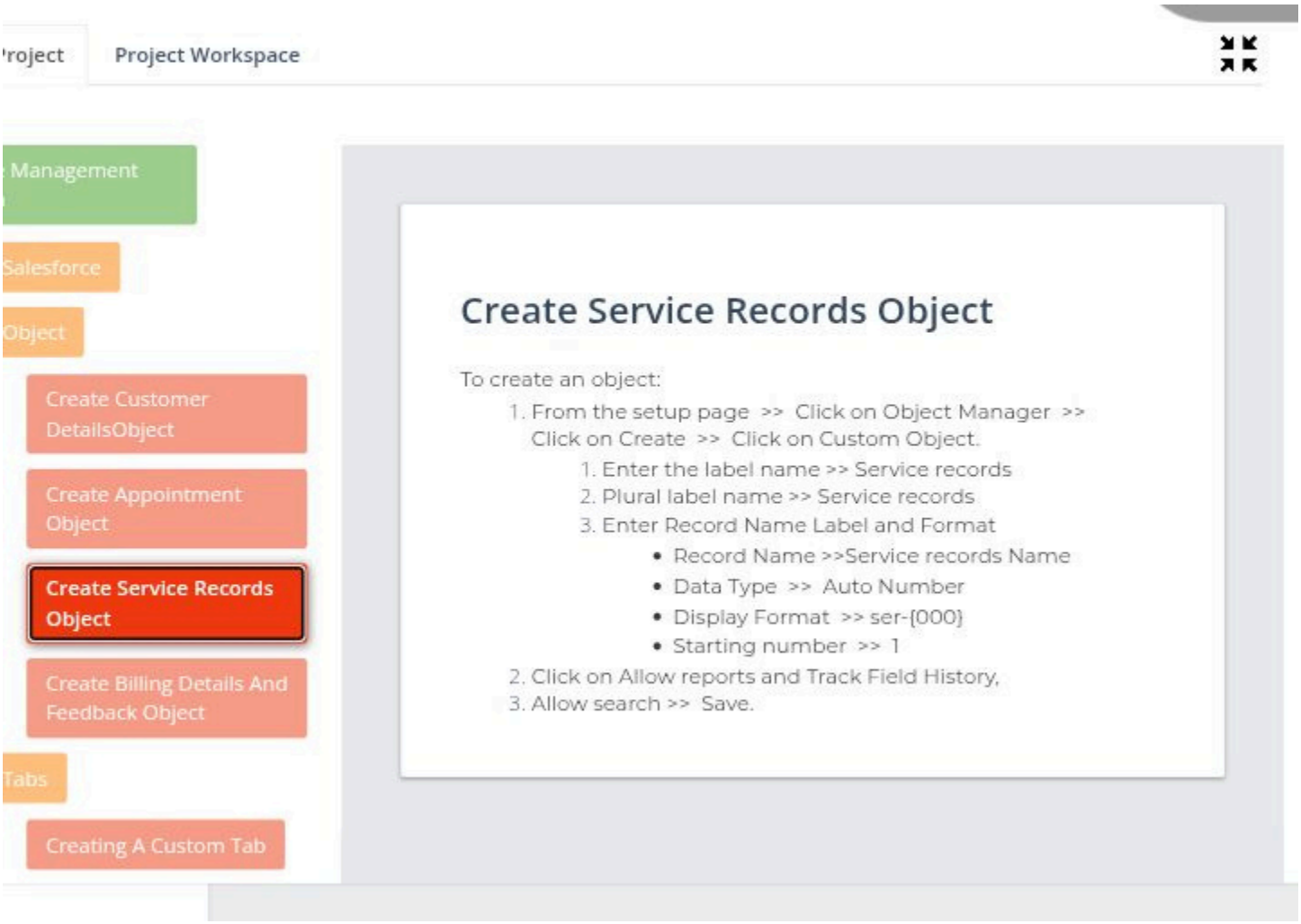
2. **Appointment Object**

This object is used to record customer appointments with unique auto-generated IDs.
It helps in scheduling and tracking customer visits efficiently.



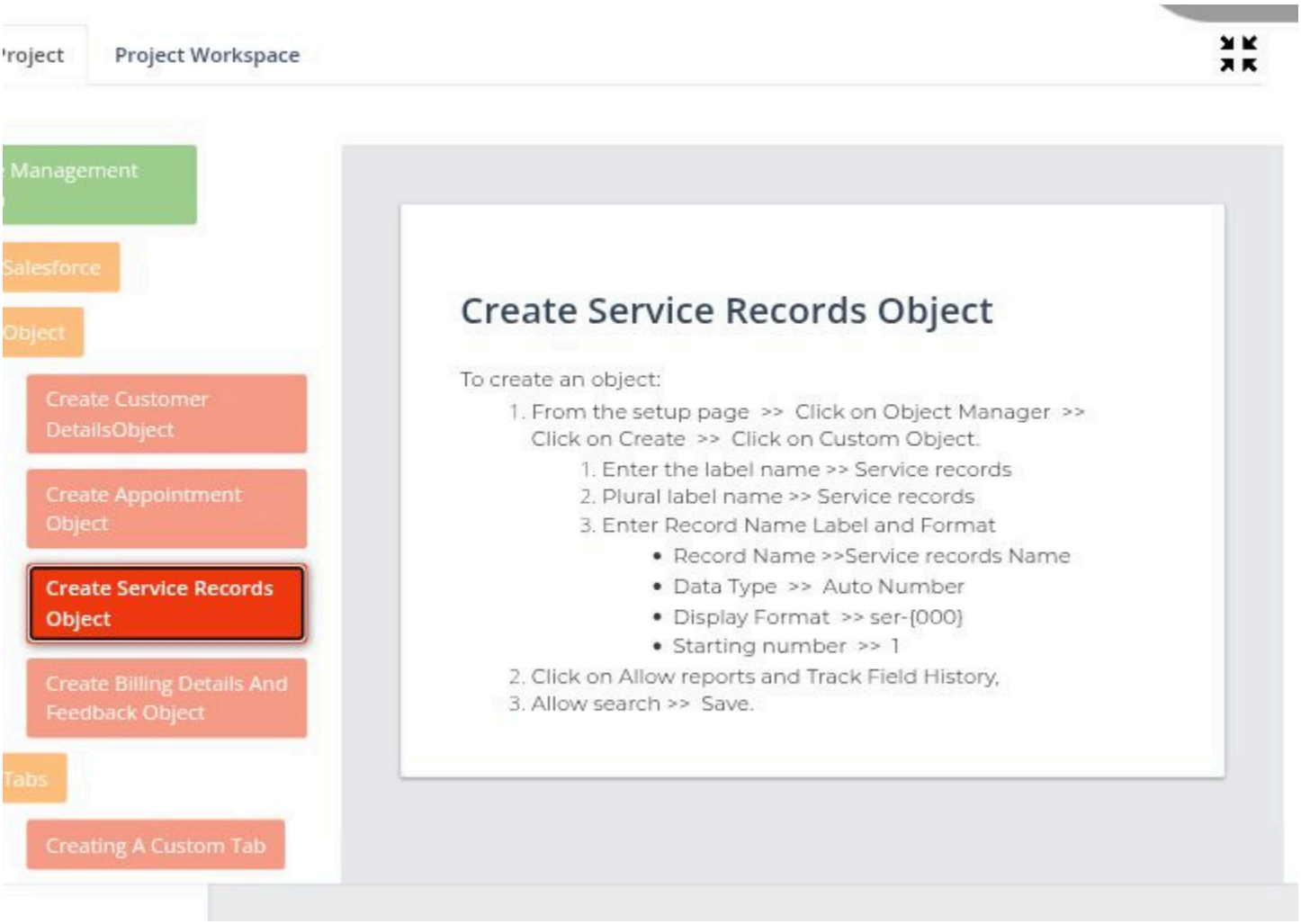
3. **Service Records Object**

This object stores details of the services provided to customers.
It helps in maintaining a service history for better customer support.



4. **Billing Details and Feedback Object**

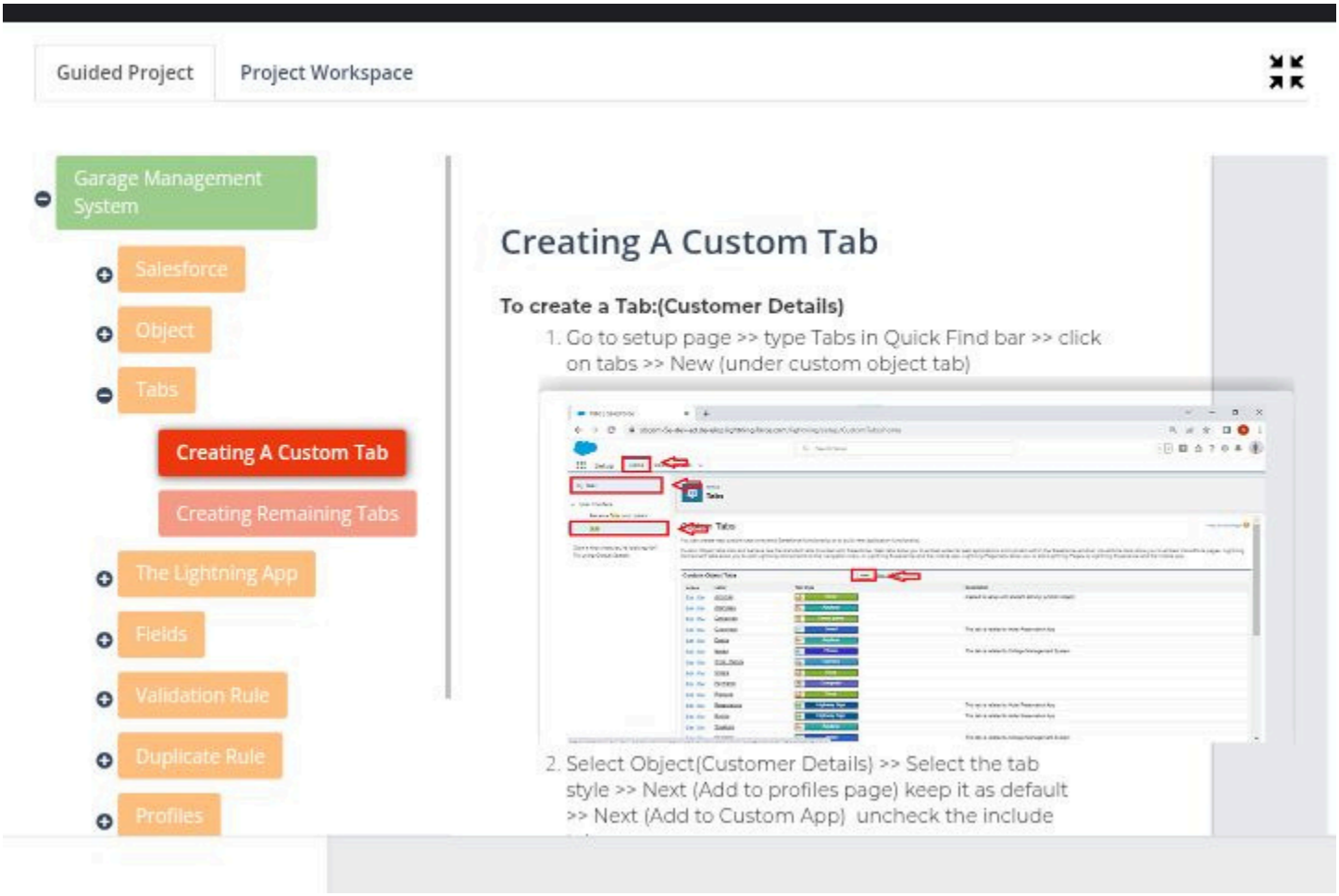
This object records billing transactions and customer feedback.
It helps in financial tracking as well as collecting feedback for service improvement



STEP 3: CREATING TABS

Creating a Custom Tab

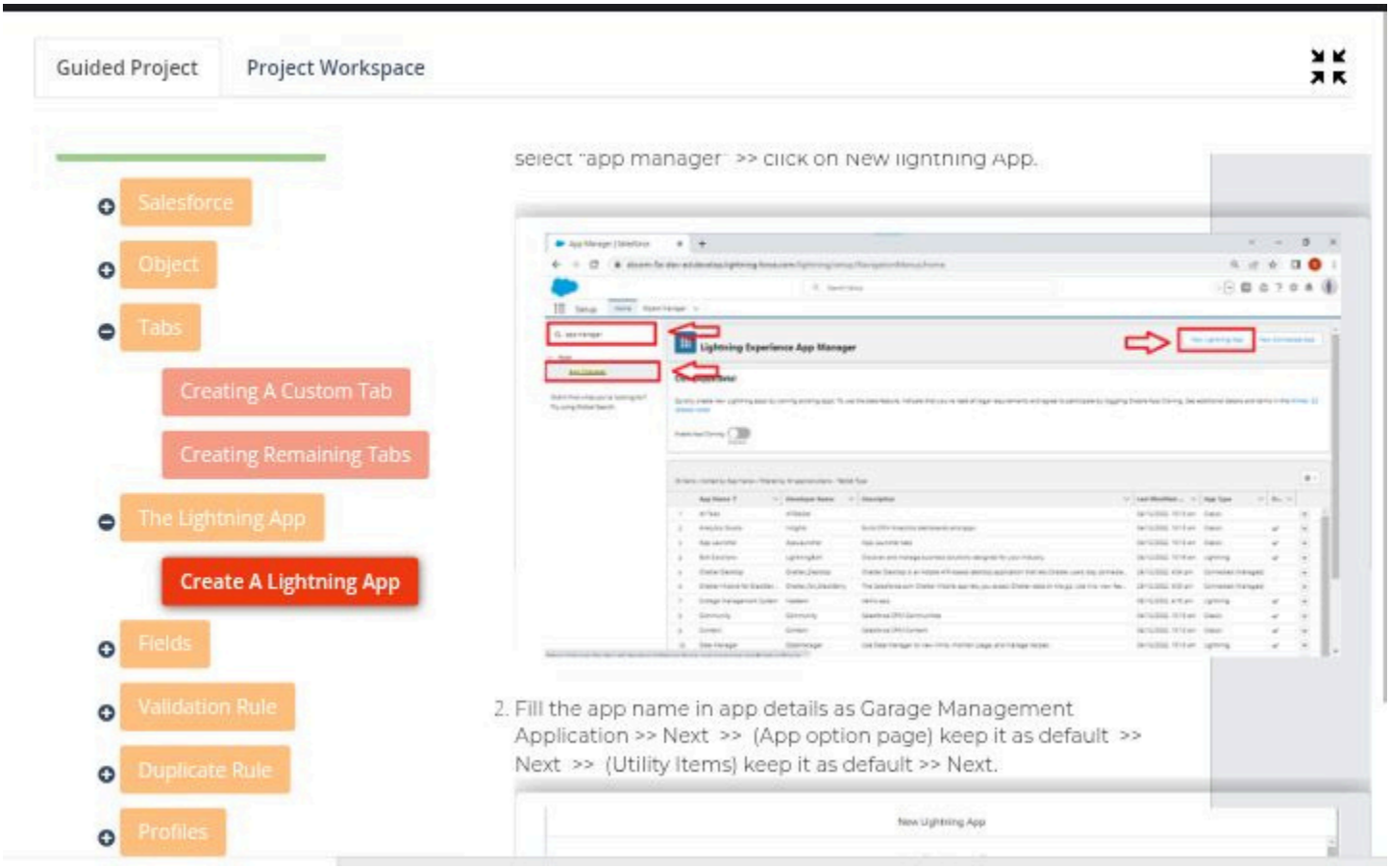
1. A custom tab is created to make custom objects (like Customer Details) easily accessible in the Salesforce app.
2. It allows users to view, add, and manage records of that object directly from the navigation bar.
3. Tabs can be customized with a unique label, style, and profile access settings.
4. It improves usability by linking the custom object with Salesforce apps for quick access.



STEP 4: CREATING LIGHTNING APP

Creating a Lightning App

1. A Lightning App allows grouping of custom objects, tabs, and utilities into one unified workspace.
2. It provides a user-friendly interface for easy navigation and better productivity.
3. The app can be customized with branding, navigation style, and assigned to specific profiles.



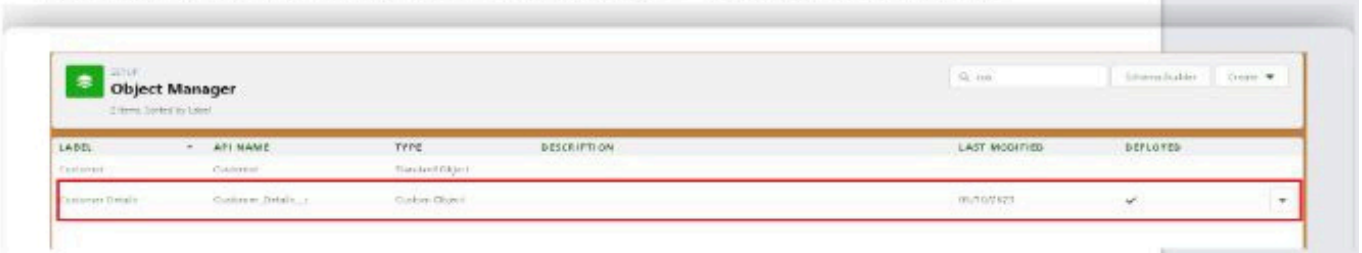
STEP 5 : CREATE FIELDS

Creating Fields for the Customer Details Object :

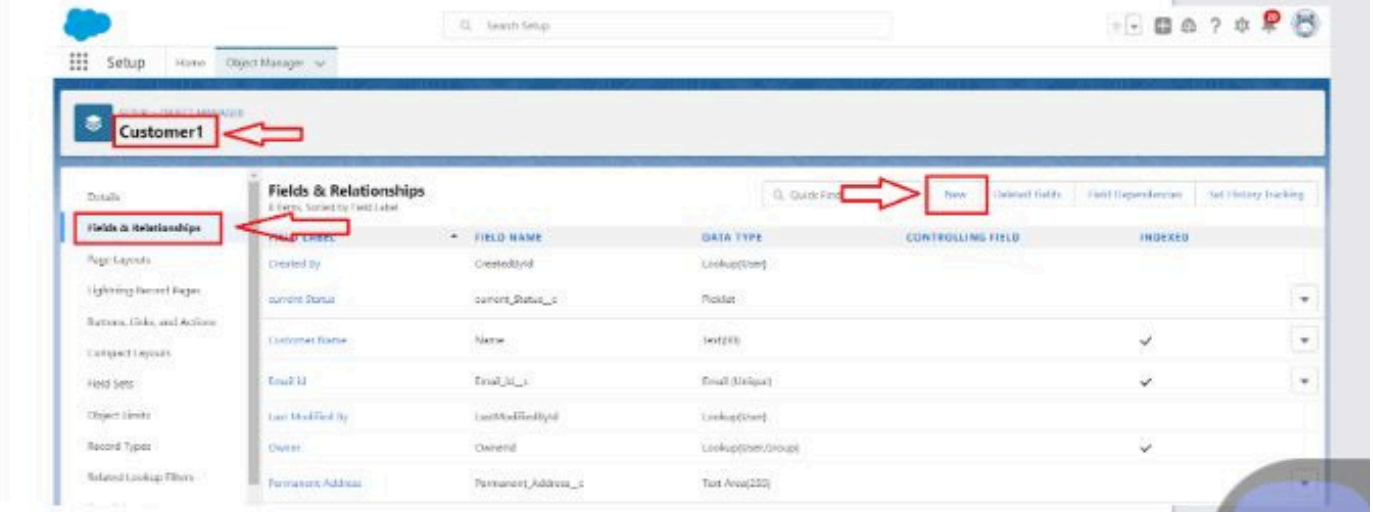
1. Fields are created to store specific information like customer name, phone, and email
2. These fields help in capturing and organizing customer-related data effectively.

1. To create fields in an object:

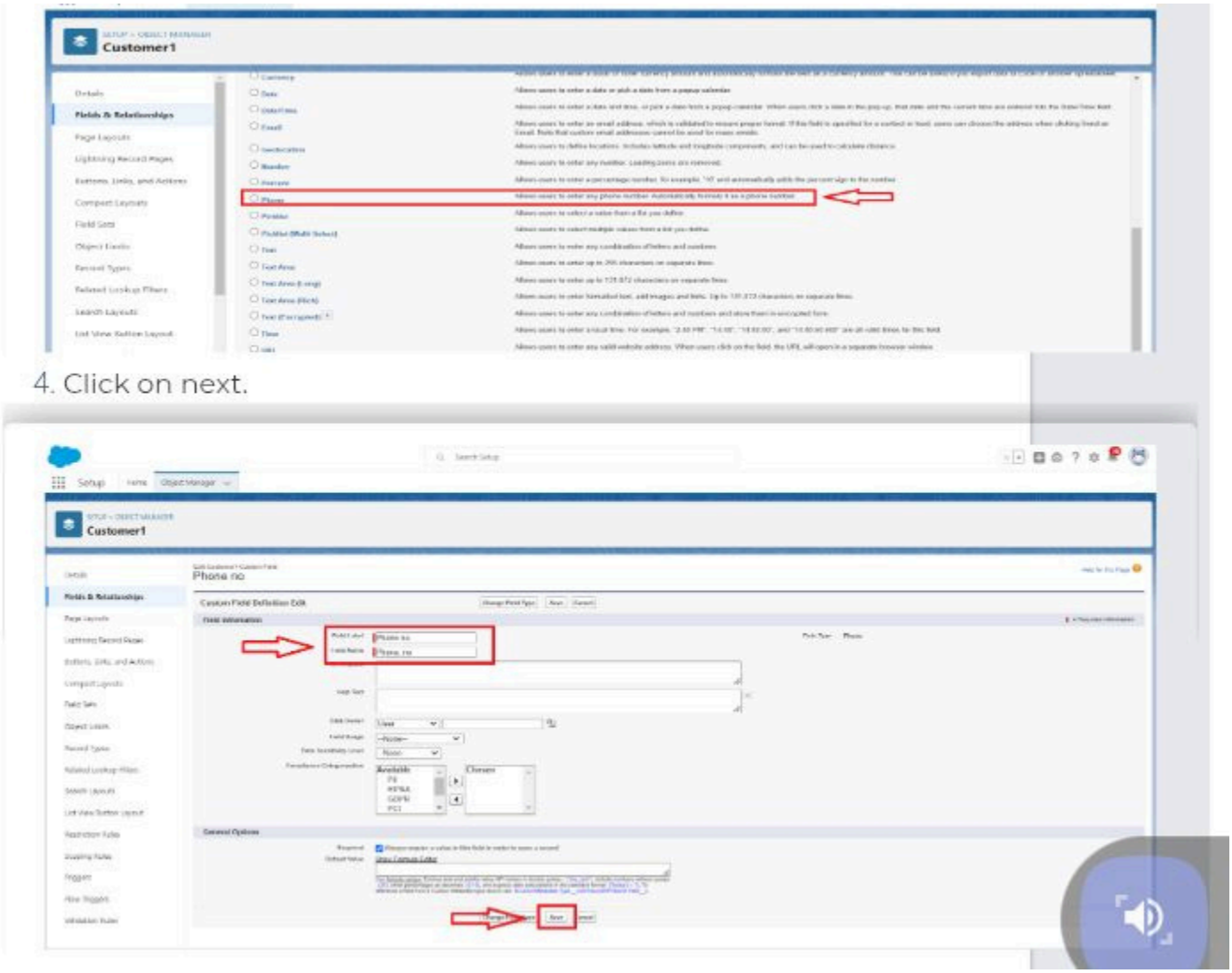
1. Go to setup >> click on Object Manager >> type object name(Customer Details) in search bar >> click on the object.



2. Now click on "Fields & Relationships" >> New

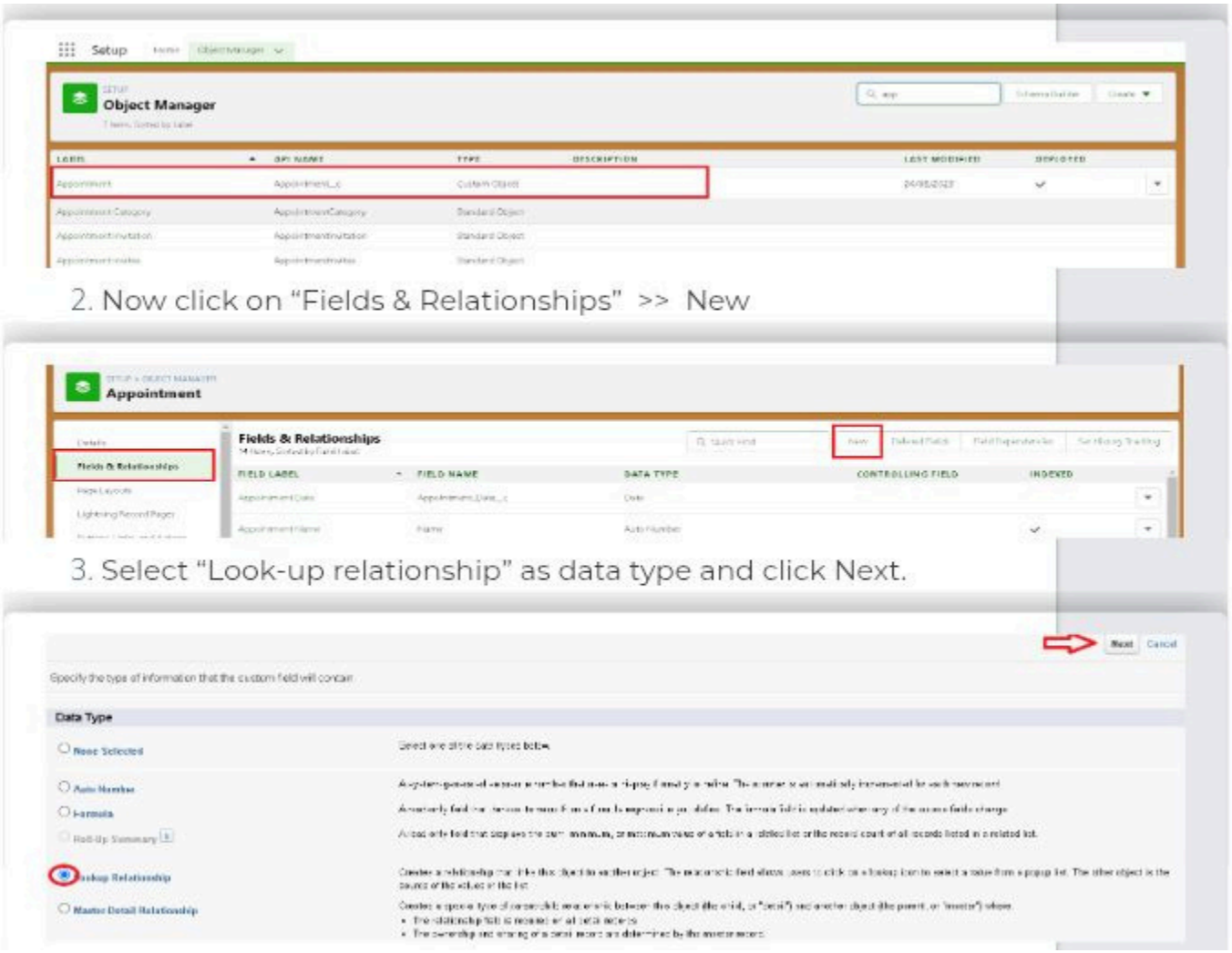


3. Select Data Type as a "Phone"



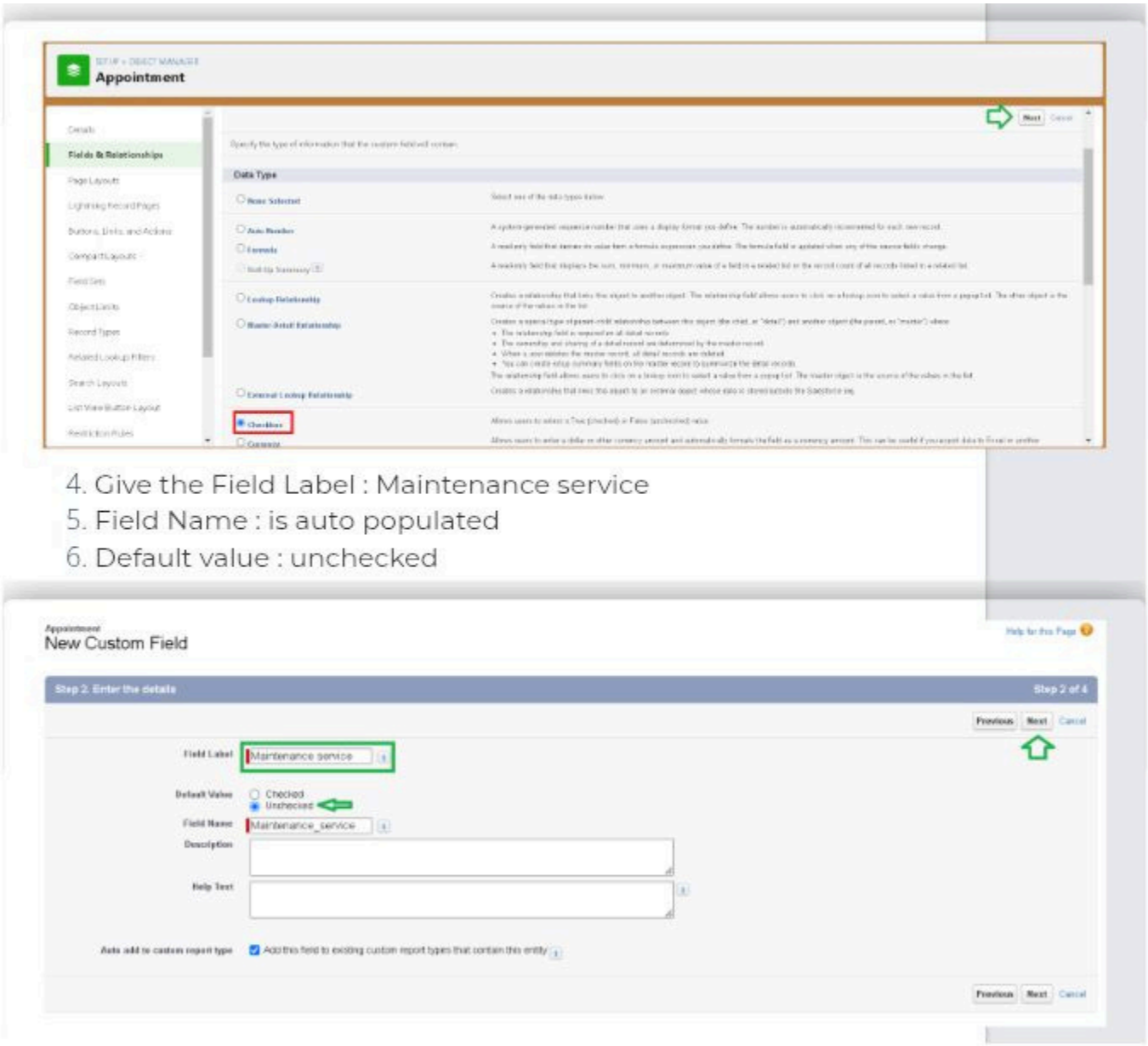
Lookup Fields

1. Lookup fields create a relationship between two objects.
2. They allow linking records, for example, connecting a customer to their appointments.



Checkbox Fields

1. Checkbox fields are used to capture true/false or yes/no type values.
2. They help in identifying simple status information like "Active Customer".



Date Fields

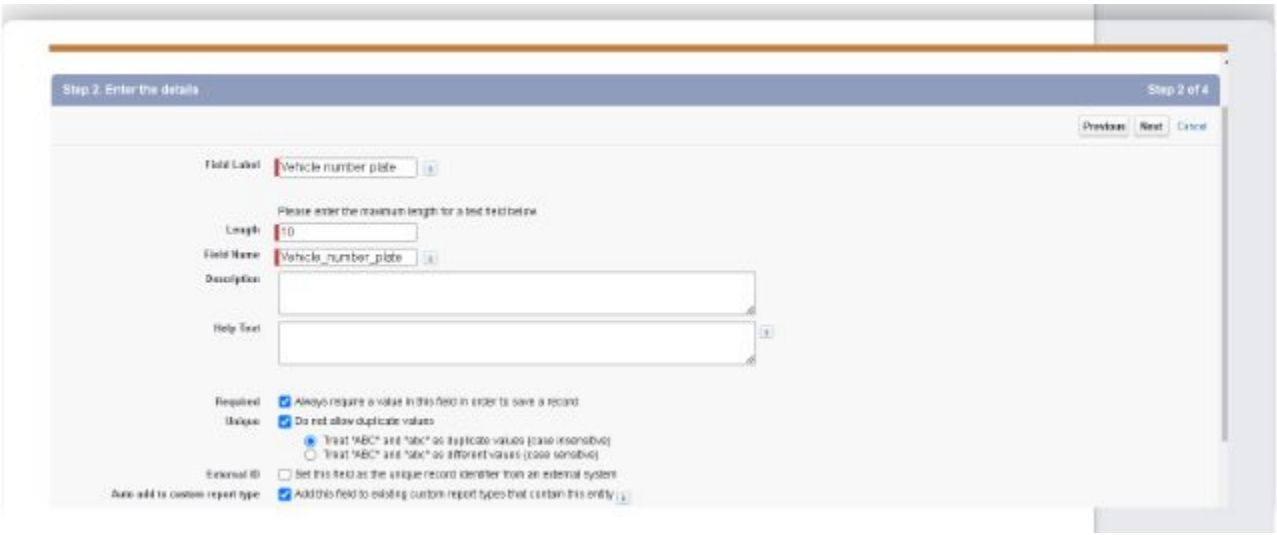
1. Date fields store date values like appointment date or service date

2. They are useful for tracking timelines and scheduling.

Currency Fields

1. Currency fields store financial values such as billing amounts.

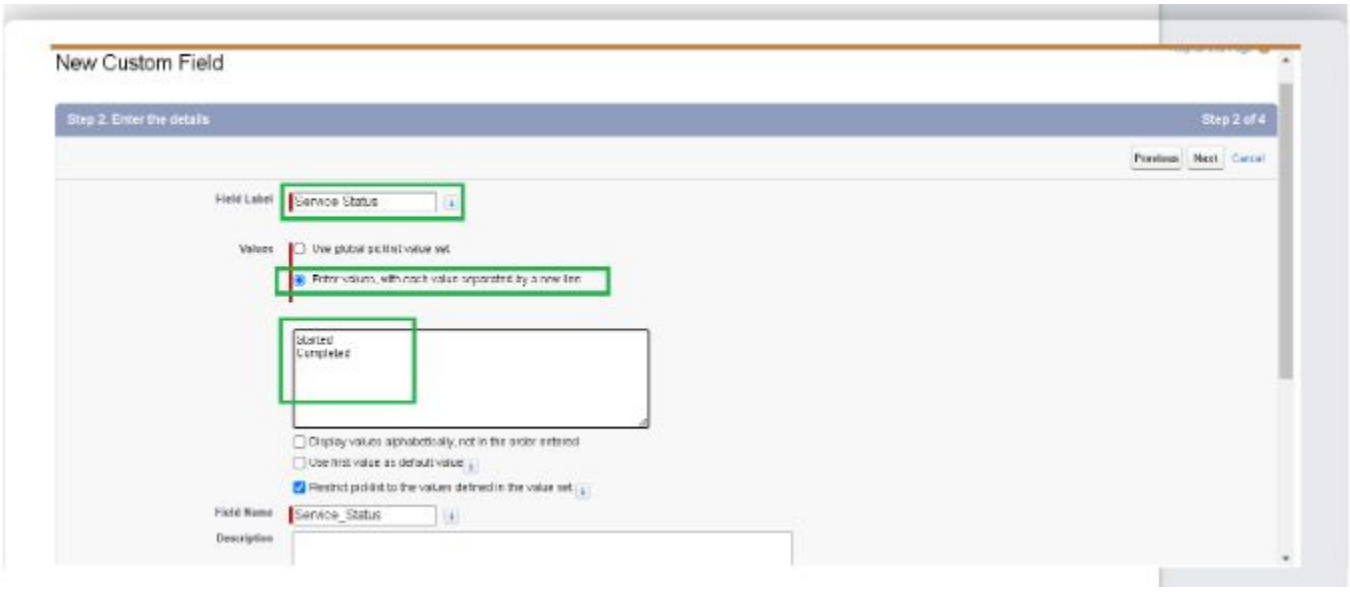
2. They are useful for calculations in invoices and payments.



Text Fields

1. Text fields allow entering names, addresses, or short descriptions.

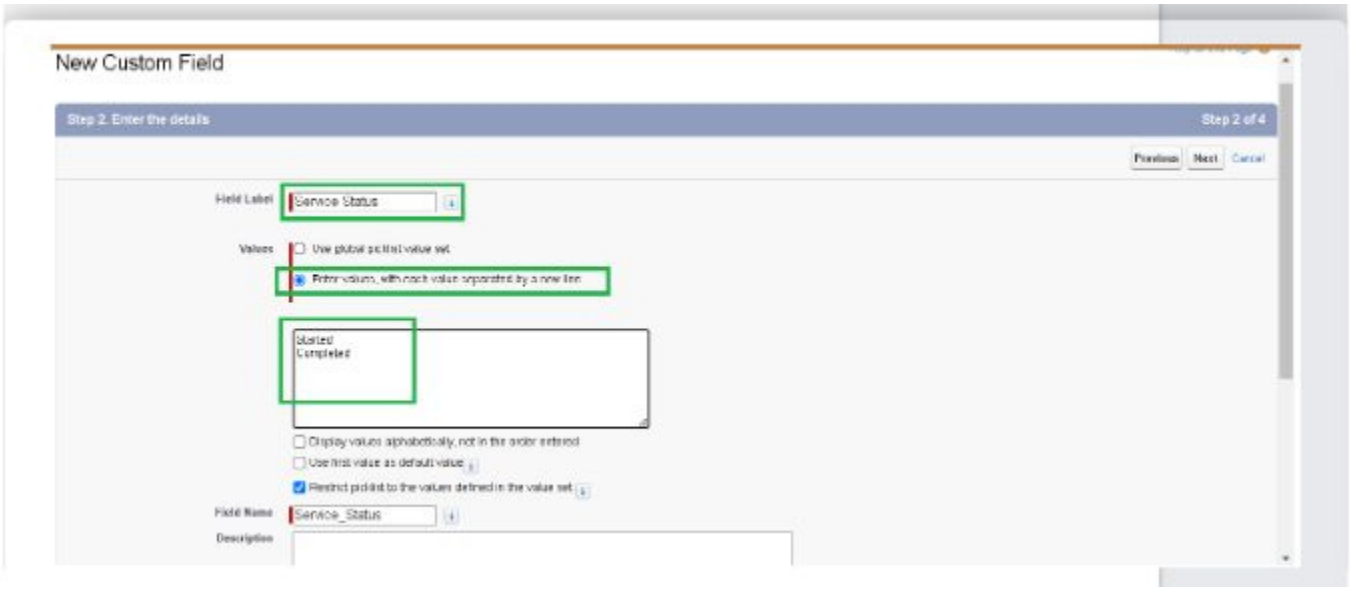
2. They are used for storing general customer information.



Picklist Fields

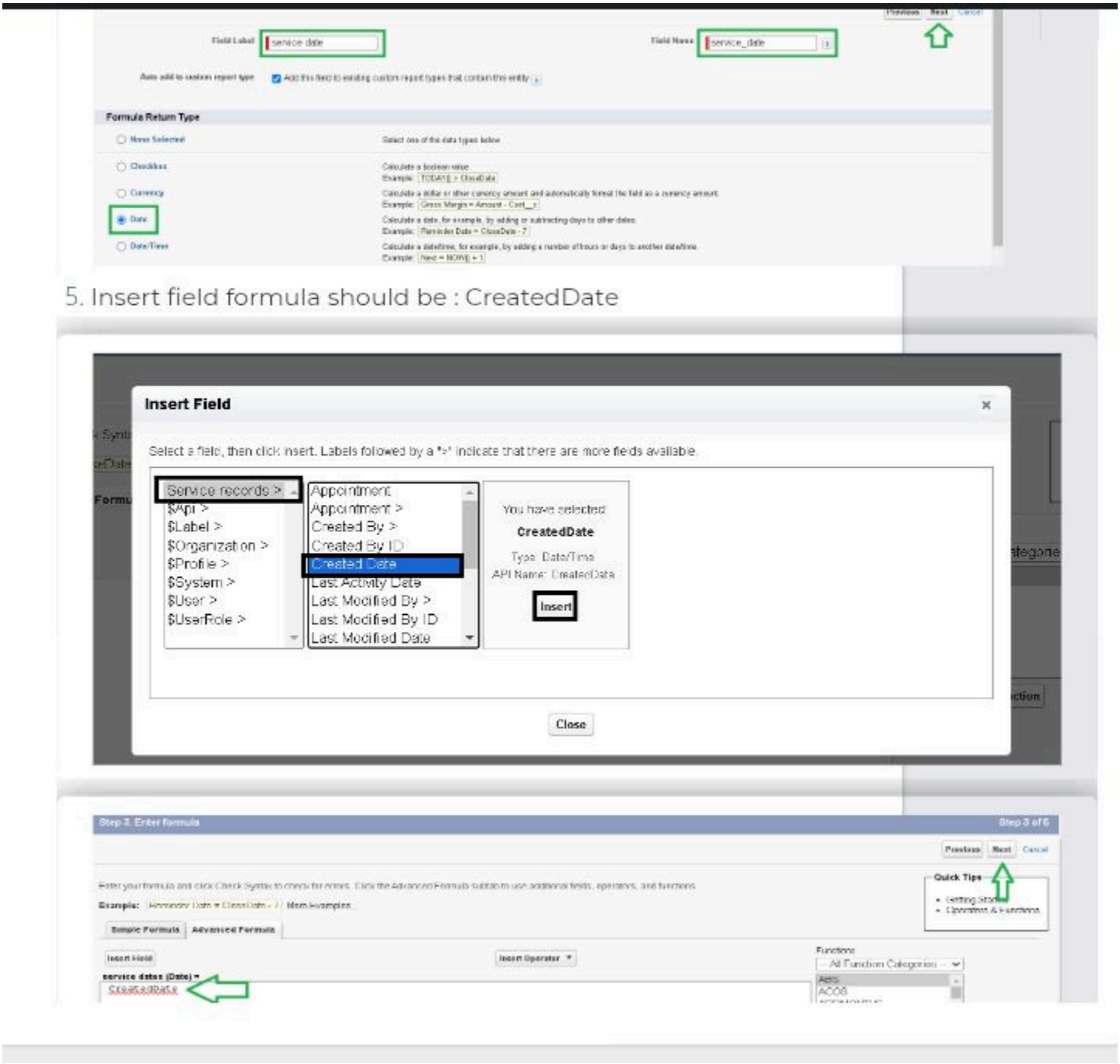
1. Picklist fields provide predefined options for selection (e.g., Service Type: Repair, Cleaning, etc.).

2. They help in maintaining data consistency and avoid typing errors.

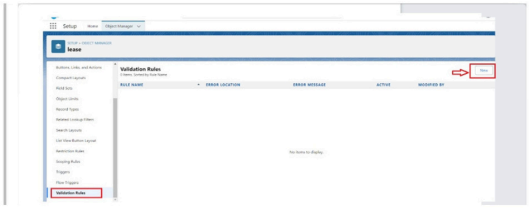


Formula Fields in Service Records Object

1. Formula fields are used to calculate values dynamically based on other fields.
2. They update automatically (e.g., Total Cost = Quantity × Price)
3. They are read-only and ensure accuracy in service records.



STEP 6 : VALIDATION RULES



- **Ensure that the lease end date is later than the start date.**
- **Validate the contact details of tenants.**
- **Prevent the submission of blank mandatory fields.**

STEP 7: CREATING DUPLICATE

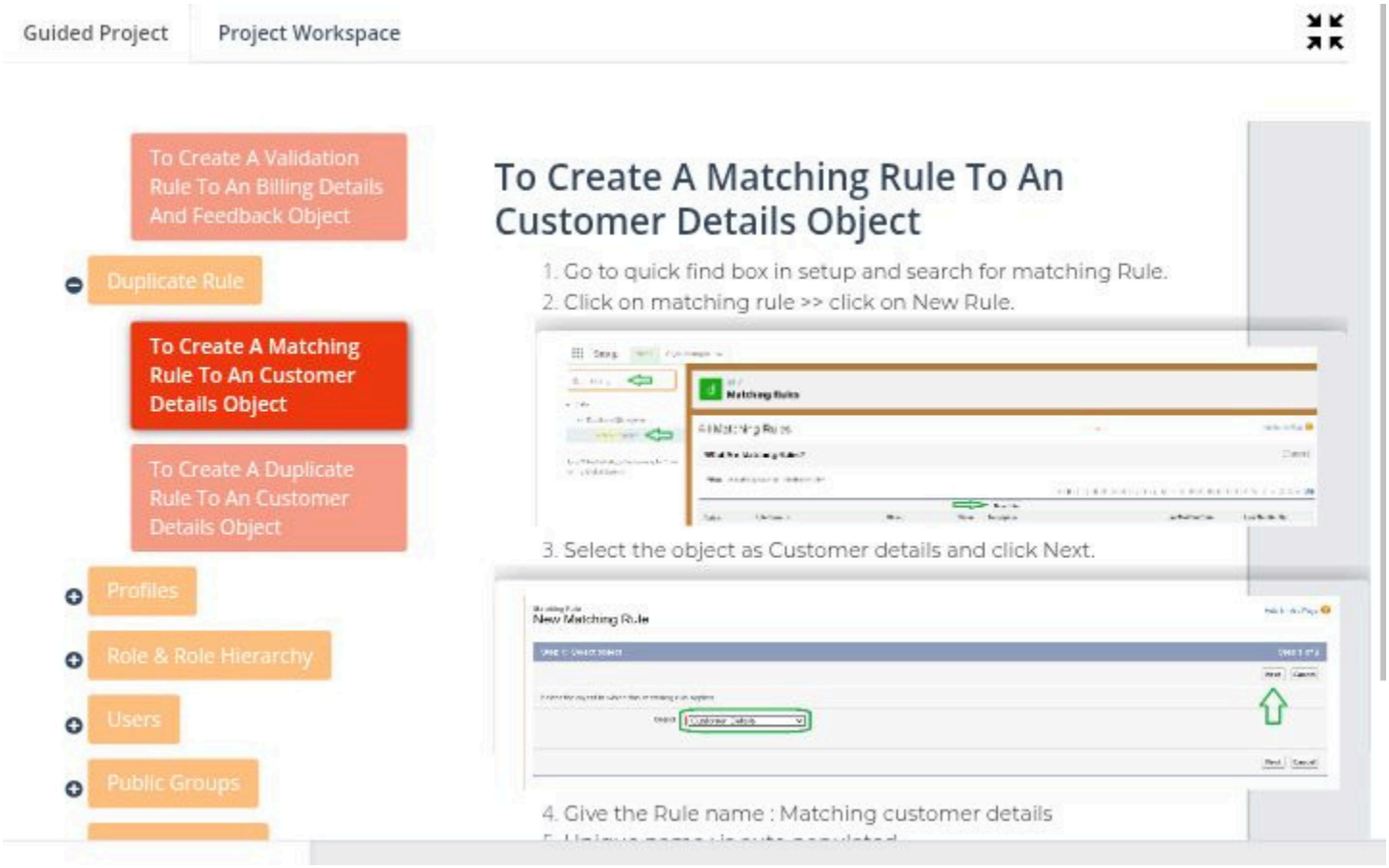
1.To Create a Matching Rule for Customer Details Object

A matching rule is used to identify duplicate records in Salesforce.

For Customer Details, it compares fields like Name, Email, or Phone.

It helps in finding similar records when new data is entered.

This ensures clean and accurate customer information.



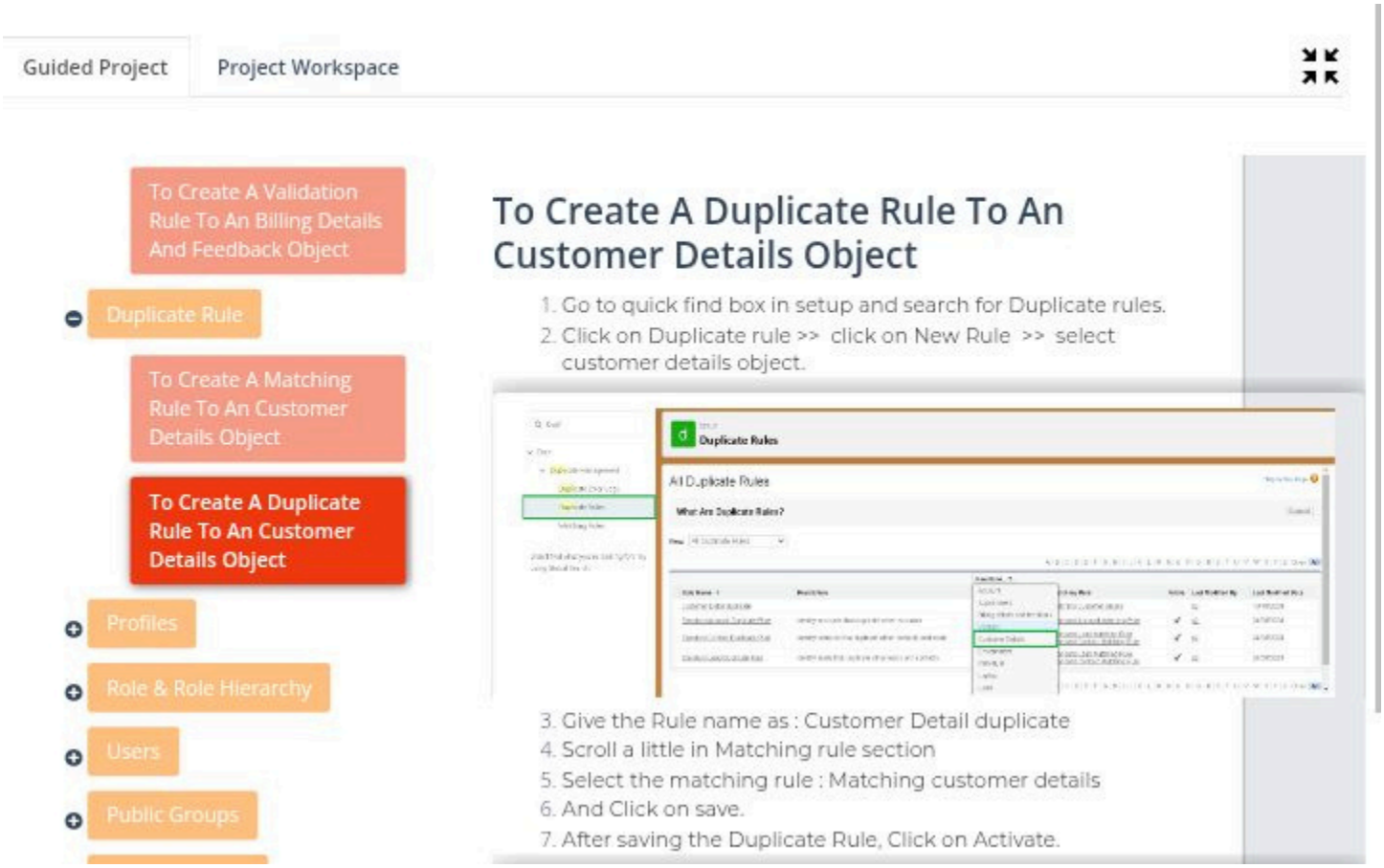
2. To create a Duplicate Rule for Customer Details Object

A duplicate rule works with the matching rule to block or allow duplicates.

It prevents users from saving records that match existing customer data.

You can choose to allow, block, or alert users on duplicates.

This keeps the Customer Details Object free from duplicate entries.



STEP 8 : PROFILES

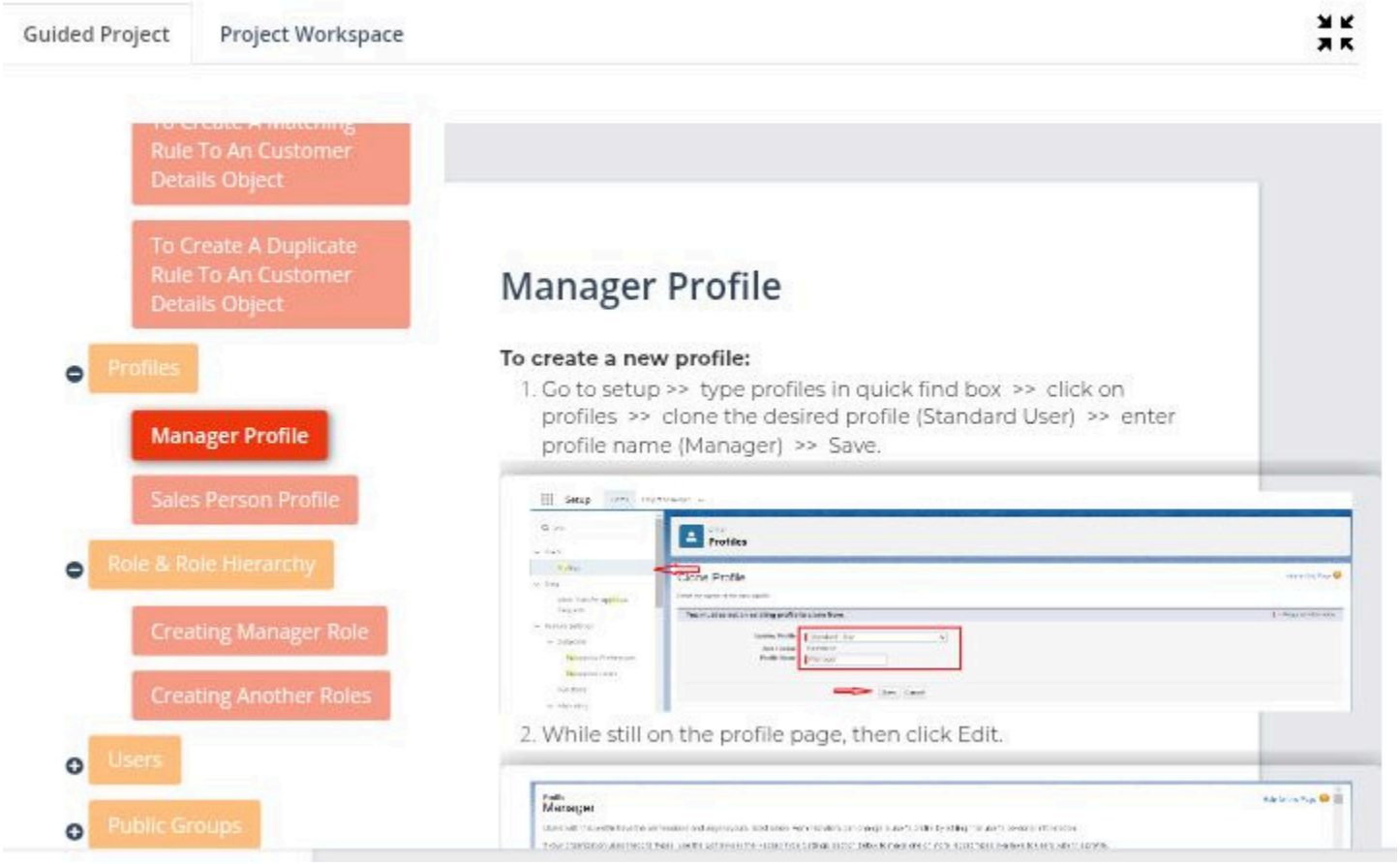
MANAGER PROFILE

The Manager Profile has full access to all objects and records.

They can create, edit, delete, and view customer, service, and billing data.

Managers can run reports, track performance, and monitor team activities.

This profile is designed for higher-level control and decision-making.



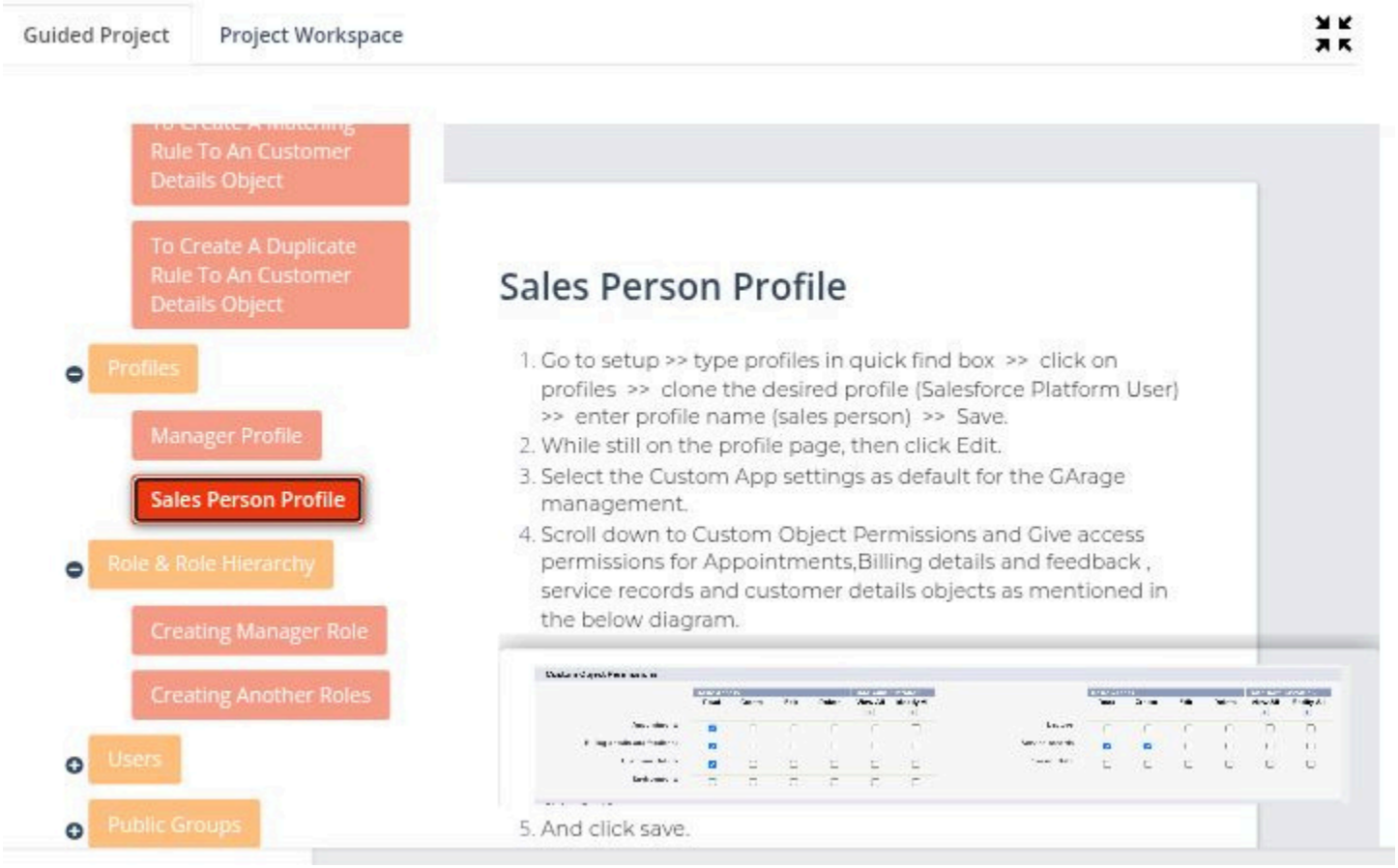
Sales Person Profile

The Sales Person Profile has limited access compared to managers.

They can create and update customer details, appointments, and service records.

Sales persons can view their assigned data but cannot modify admin settings.

This profile is designed to focus on customer handling and sales activities.



STEP 9 : ROLE AND ROLE HIERARCHY

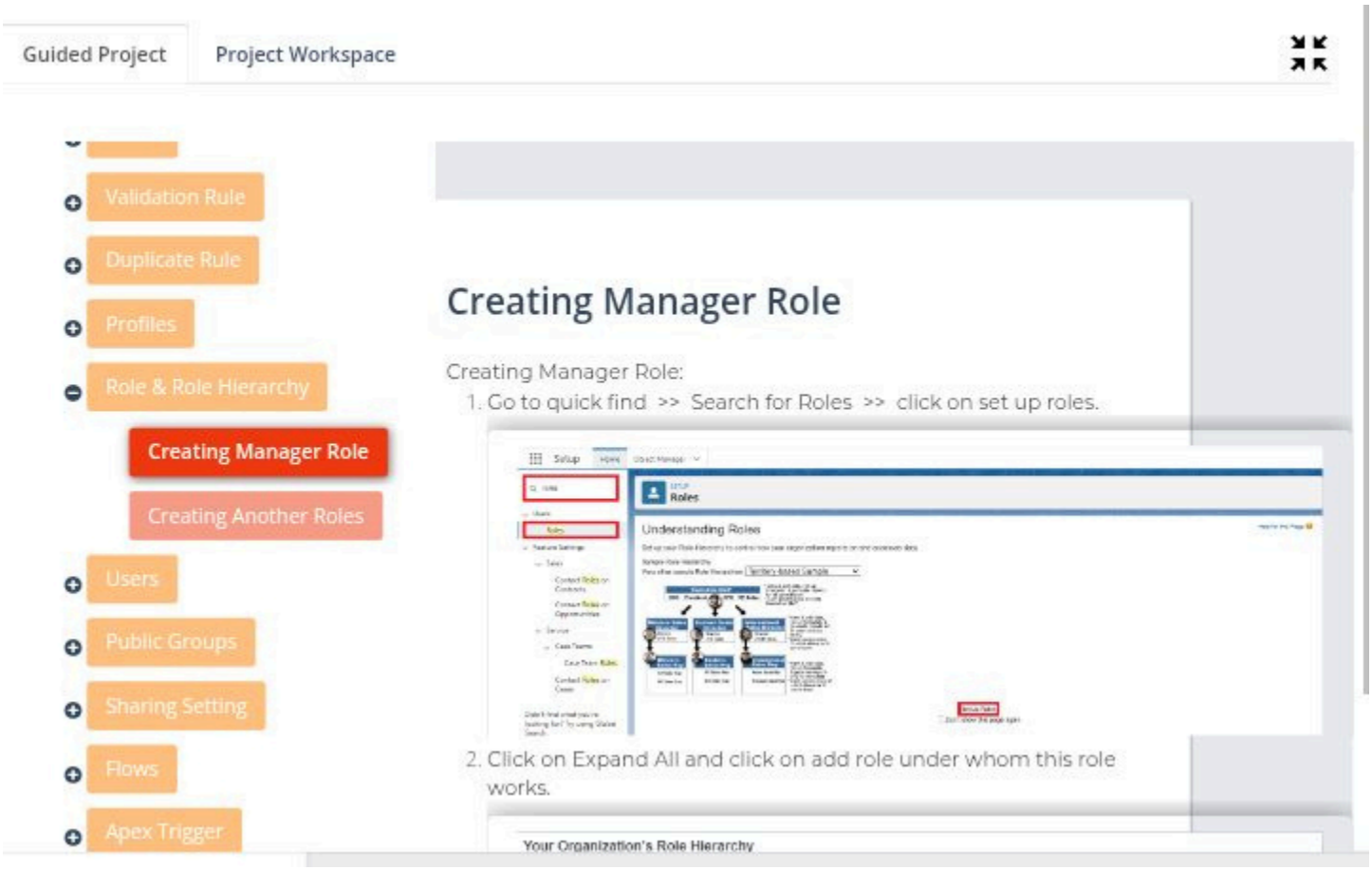
Creating Manager Role

The Manager Role defines hierarchy access above sales persons.

Managers can view and control records created by their team.

It helps in monitoring customer details, service records, and billing.

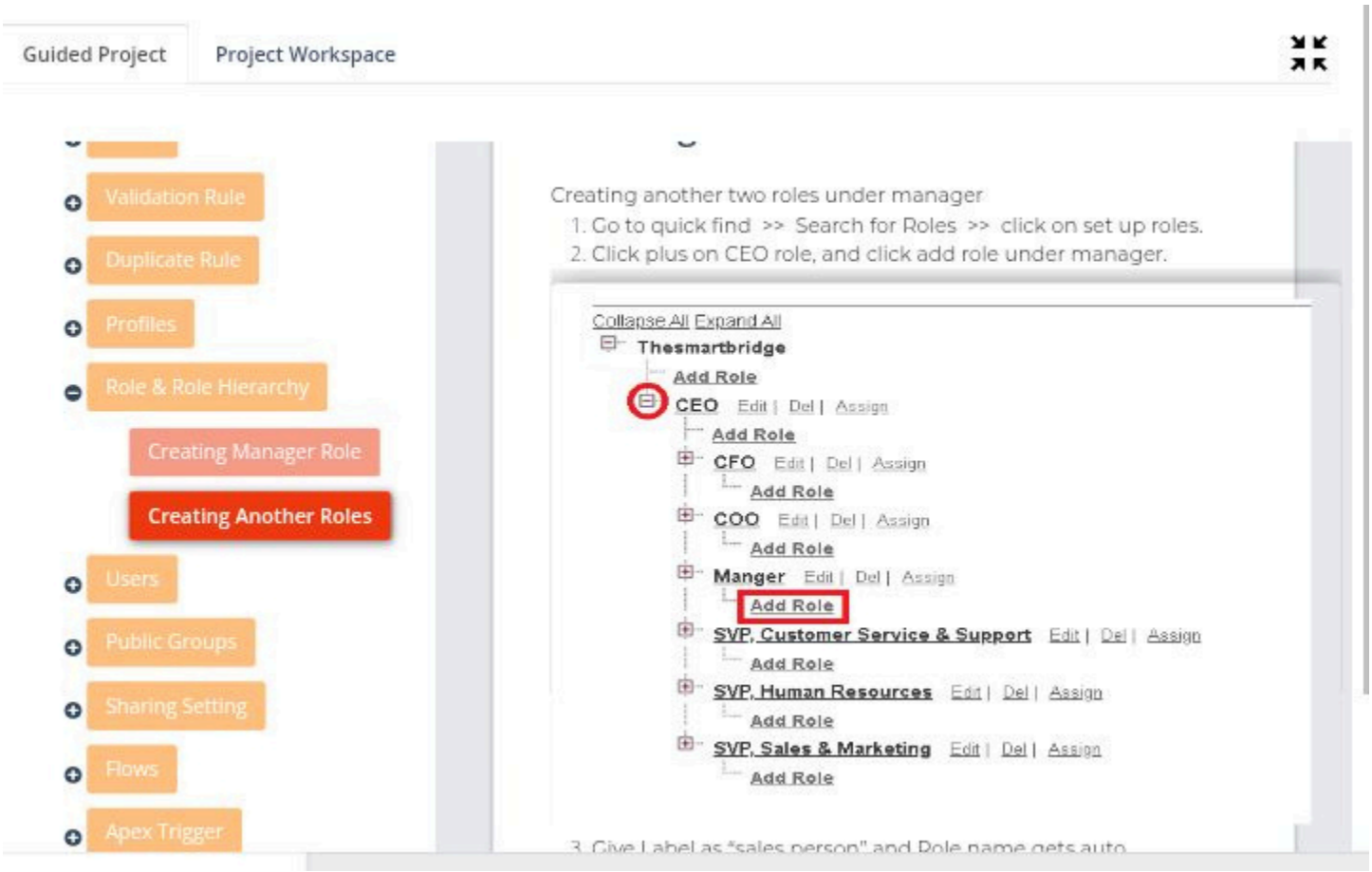
This role ensures proper supervision and decision-making authority



Creating Another Role (Sales Person Role)

The Sales Person Role is created below the manager role in hierarchy.

It allows handling customer details, appointments, and service records.



STEP 10: CREATE USER

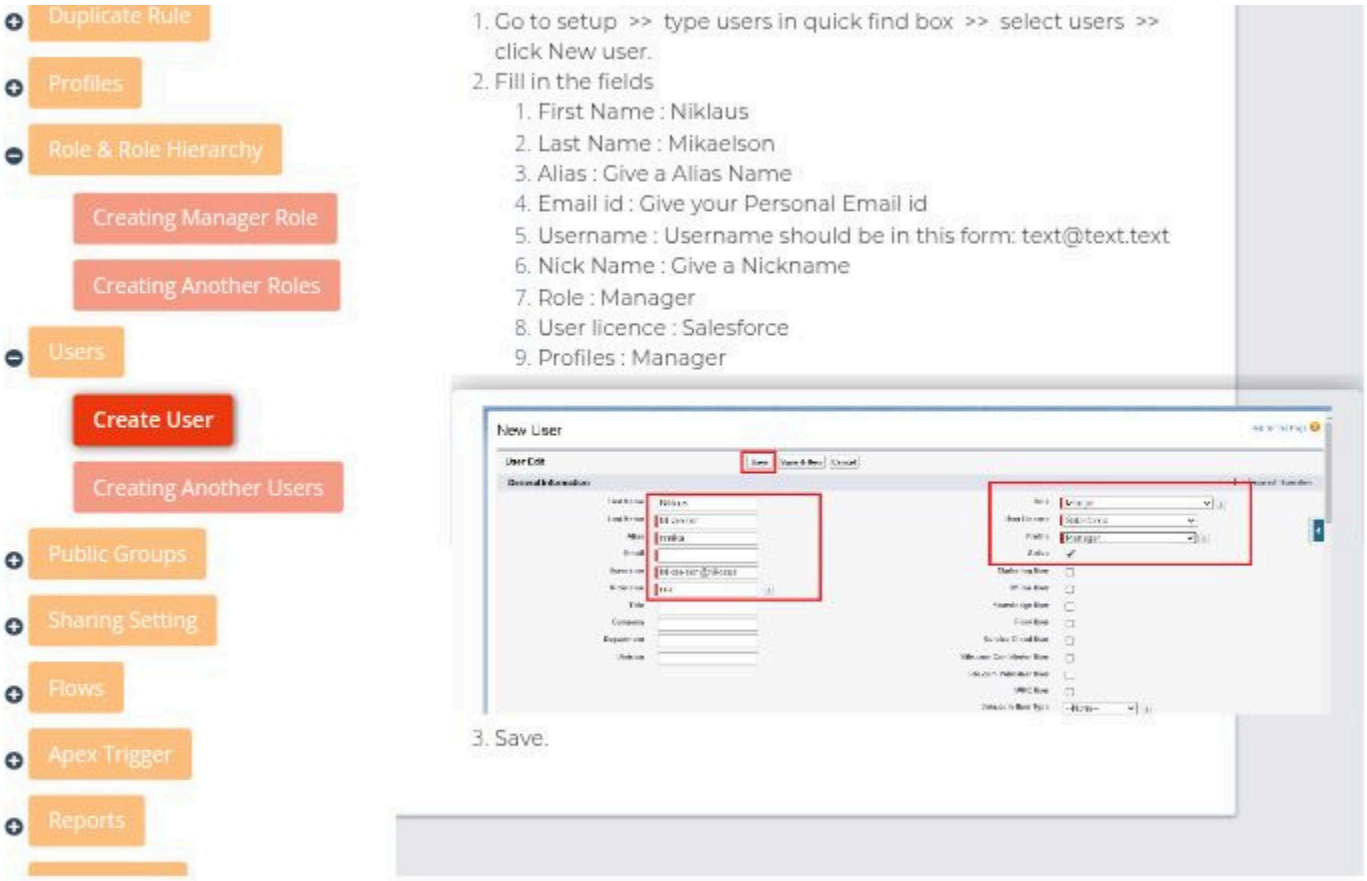
Creating a User

A user is created in Salesforce to give login access to the system.

Details like name, email, profile, and role are assigned while creating.

The user can access objects and records based on their profile permissions.

This ensures secure and personalized access for each individual.



Creating Another User

Another user can be created for different roles like Sales Person or Manager.

They are given unique credentials and access settings.

This helps in assigning responsibilities according to their job role.

It ensures smooth teamwork and proper data access control.

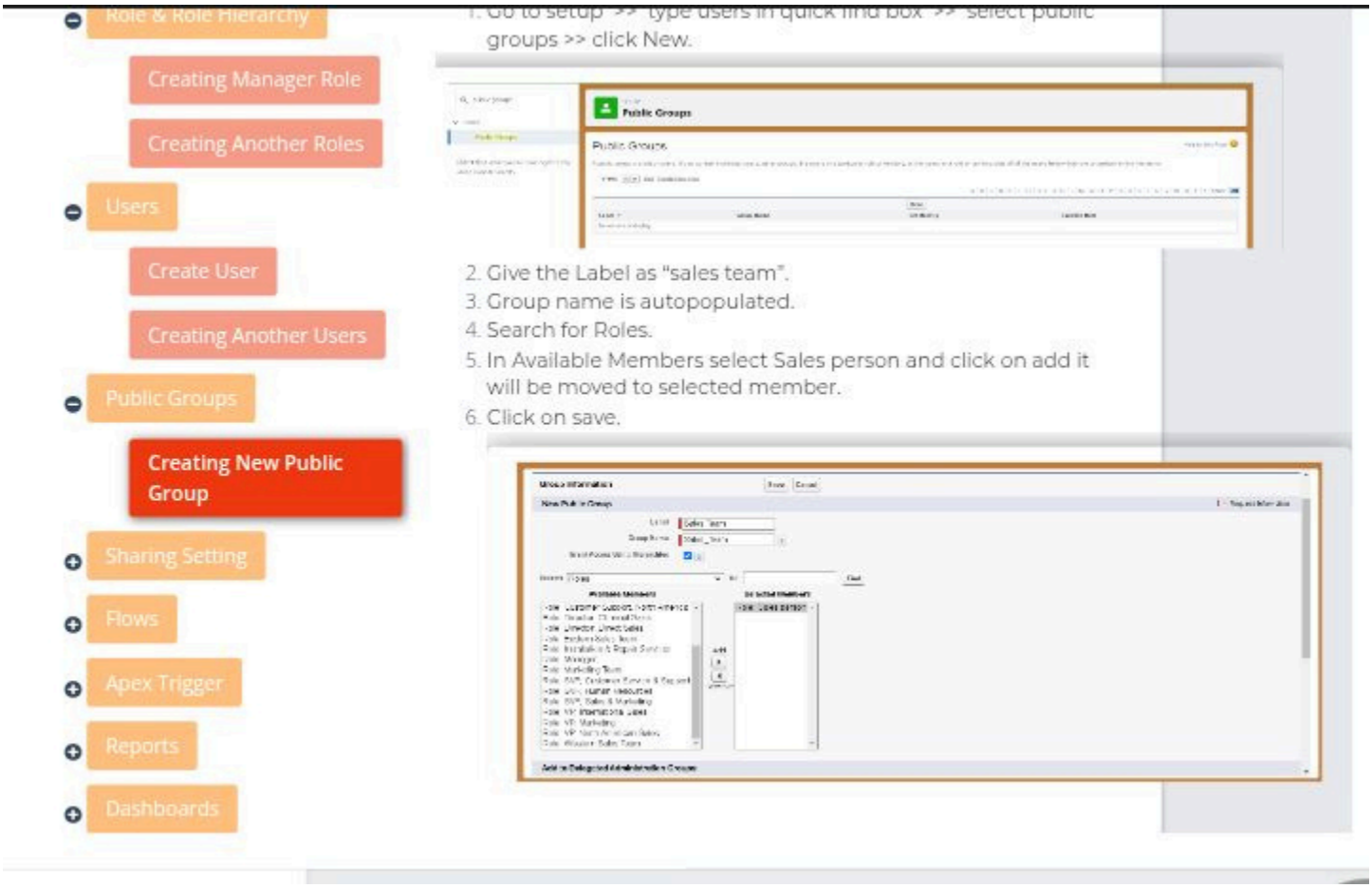
STEP 11: CREATING PUBLIC GROUPS

A public group is created to combine multiple users, roles, and profiles.

It helps in sharing records and giving common access permissions.

Managers can use groups to assign tasks or share data with many users at once.

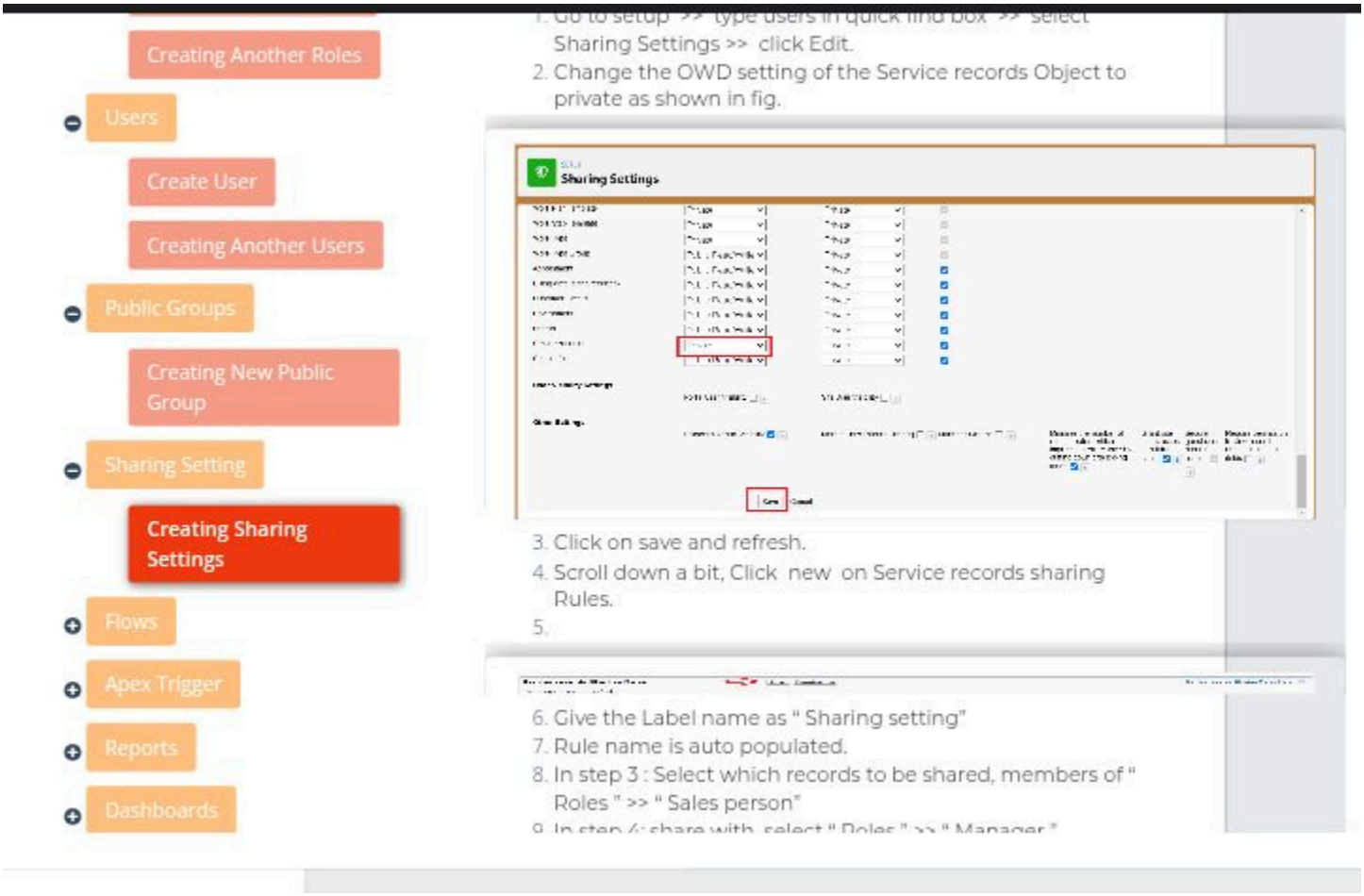
This ensures easier collaboration and controlled record sharing in Salesforce



STEP 12 : CREATING SHARING SETTINGS

Creating Sharing Settings

Sharing settings control the visibility of records across users in Salesforce.
They define whether data is private, public, or shared with specific roles/groups.
Admins can set organization-wide defaults and then add exceptions.
This ensures secure access while allowing collaboration when needed.



STEP 13 : CREATING FLOWS

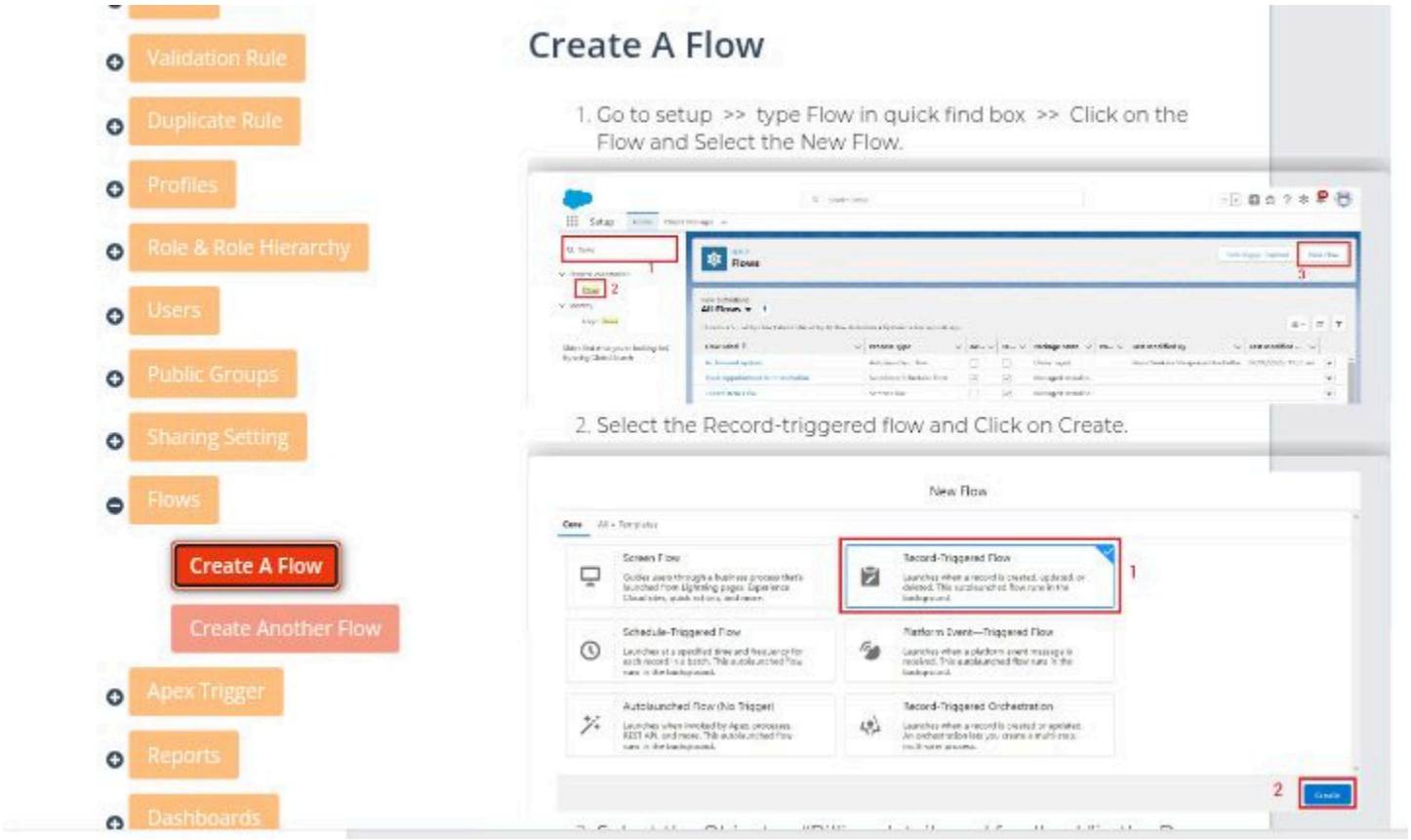
Creating a Flow

A flow automates business processes like data entry, updates, or approvals.

It is built using Flow Builder with drag-and-drop elements.

Flows reduce manual work by performing actions automatically.

They ensure accuracy and save time in managing security



STEP 14: APEX TRIGGER

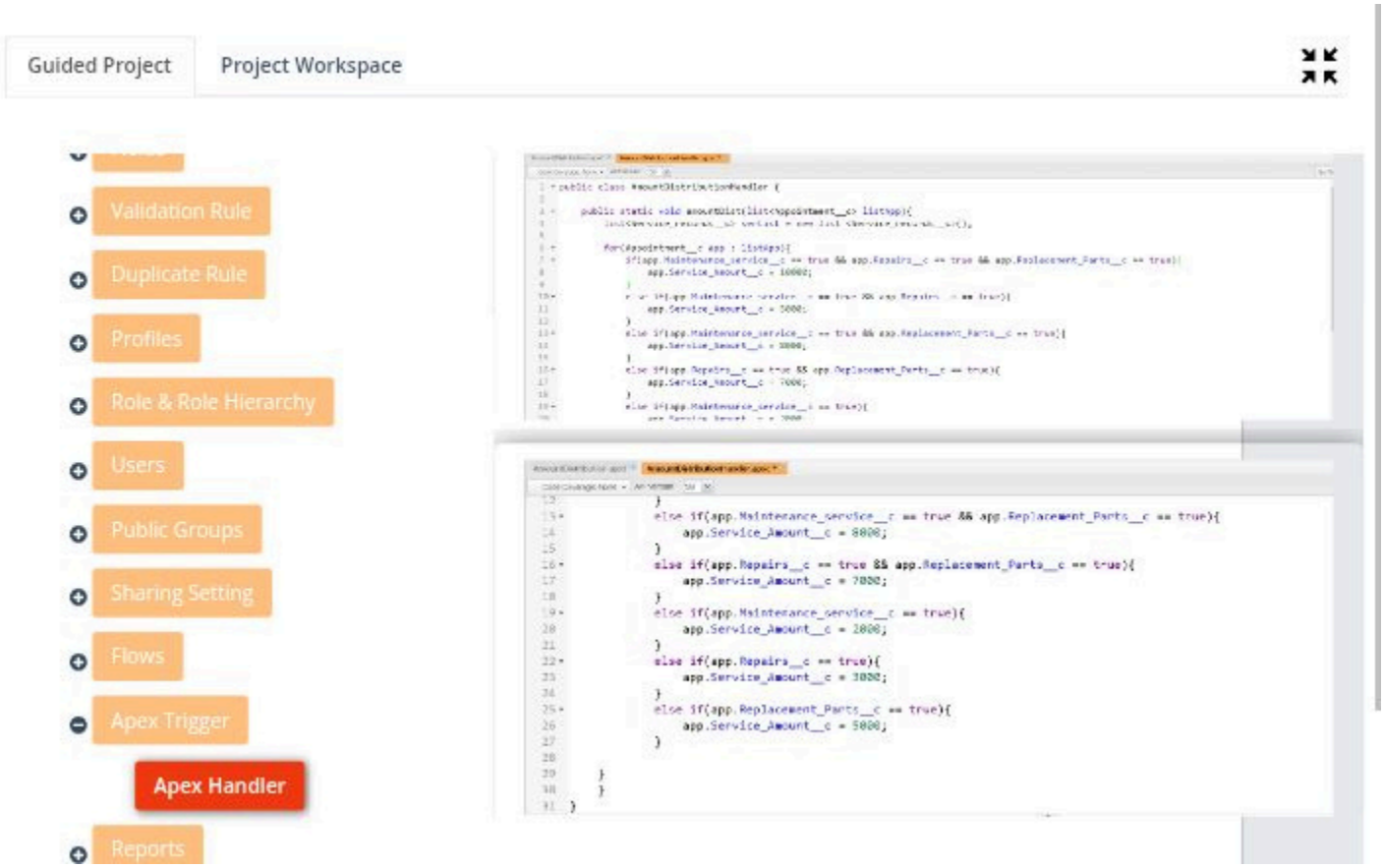
Apex handler:

An Apex Handler is a class used to manage the logic of Apex Triggers.

It keeps the trigger code clean by separating logic into a handler class.

This improves reusability, readability, and easier maintenance of code.

Handlers support best practices by avoiding complex logic directly in triggers.



STEP 15 : REPORTS

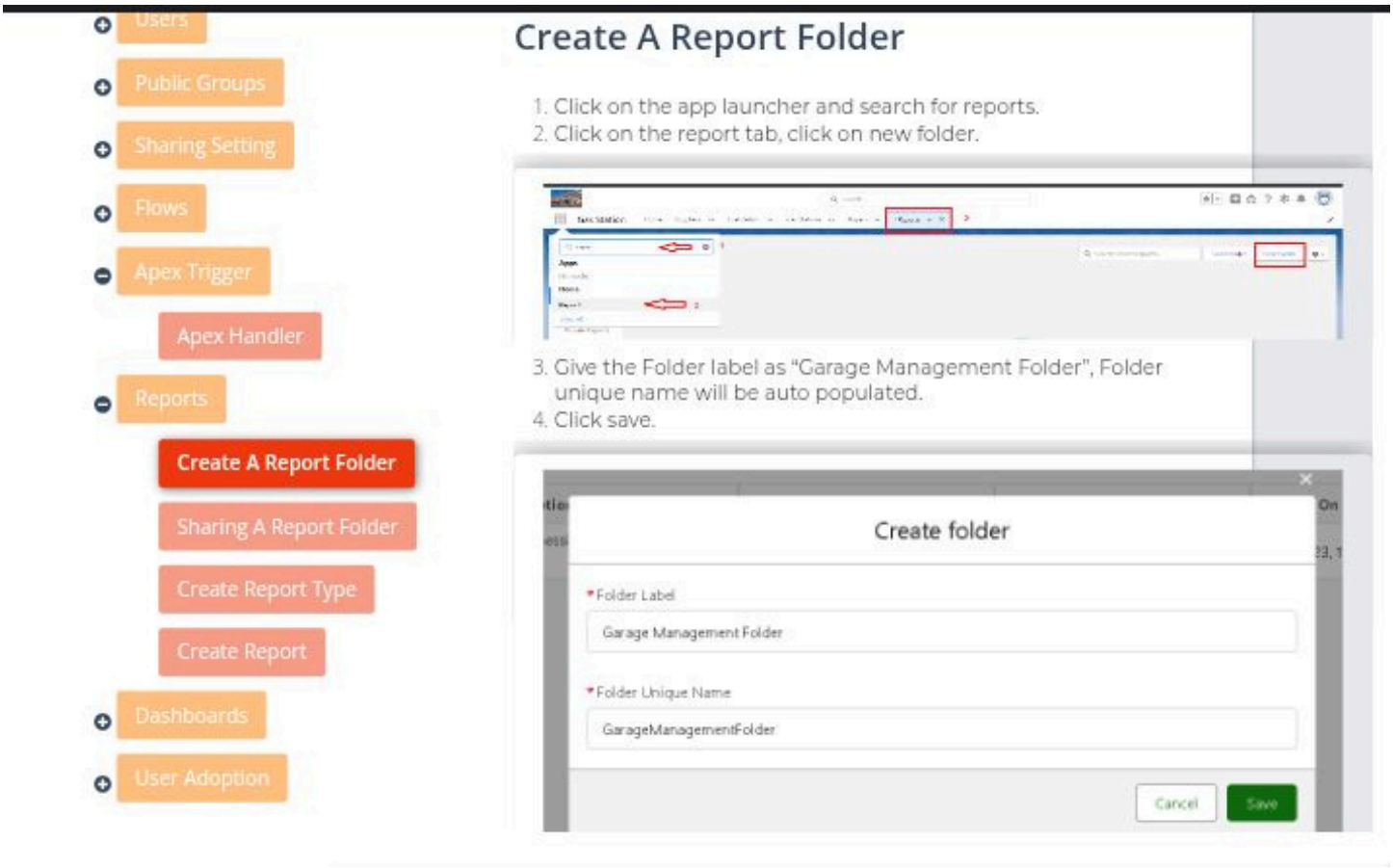
Create a Report Folder

A report folder is created to organize reports in Salesforce.

It helps in grouping related reports for easy access.

Folders can be private or shared with specific users.

This ensures structured storage and secure access to reports.



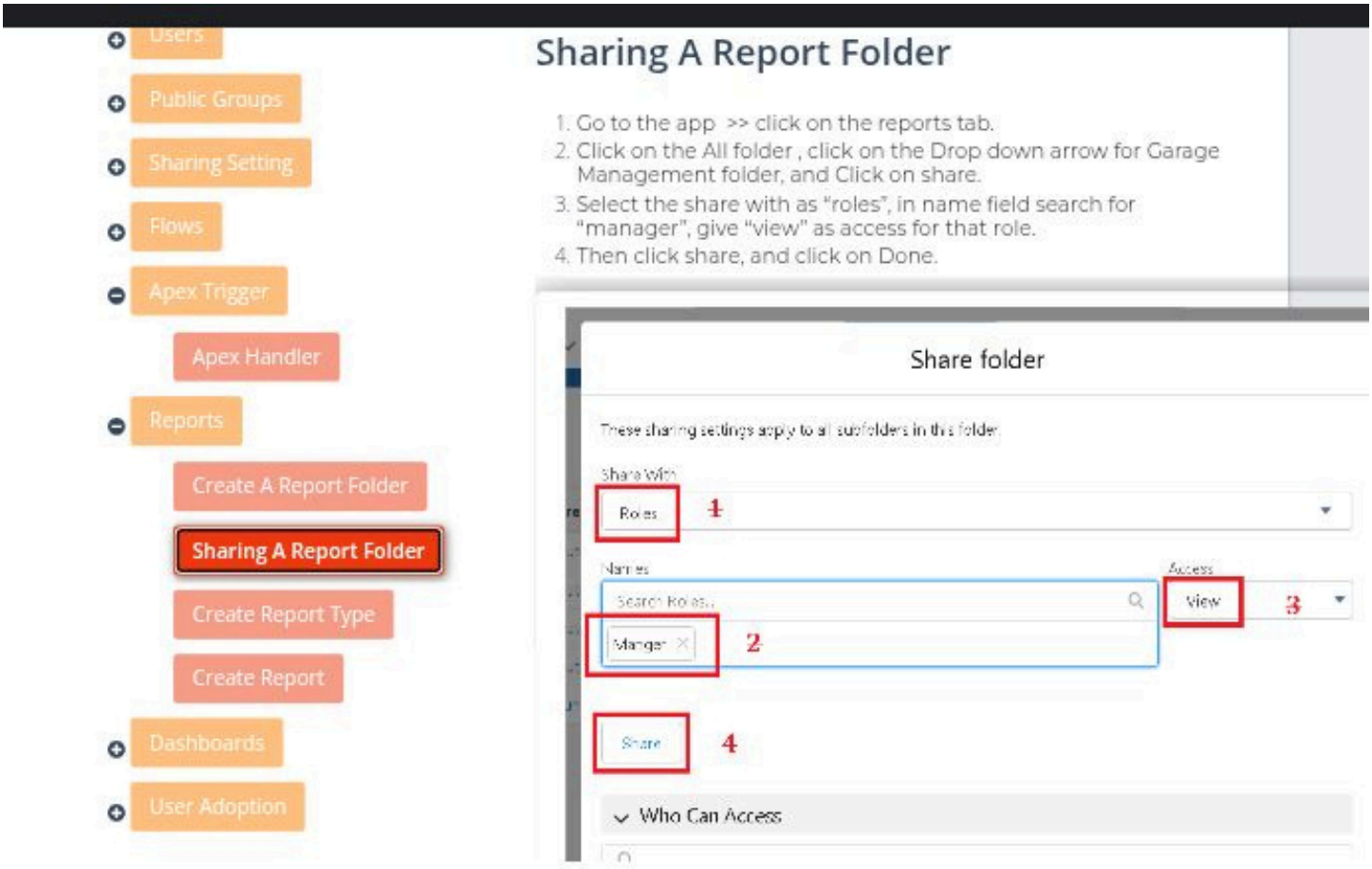
Sharing a Report Folder

Report folders can be shared with users, roles, or public groups.

Sharing allows others to view, edit, or manage reports inside the folder.

Access levels like Viewer, Editor, or Manager can be assigned.

This improves collaboration while maintaining data security.



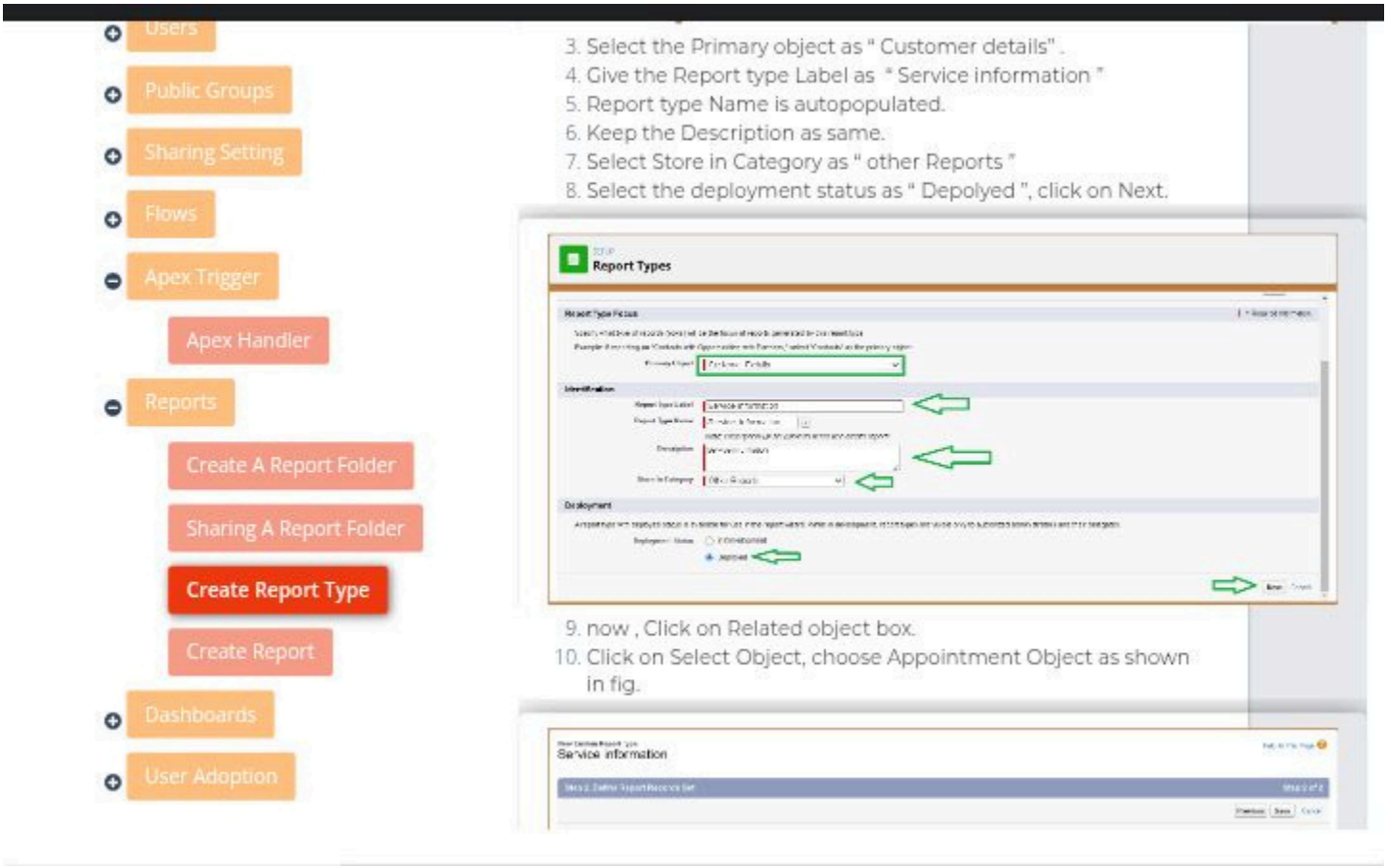
Create Report Type

A report type defines which objects and fields are available in a report.

It acts as a template for building customized reports.

Admins can create custom report types to meet business needs.

This ensures flexibility in analyzing specific data.



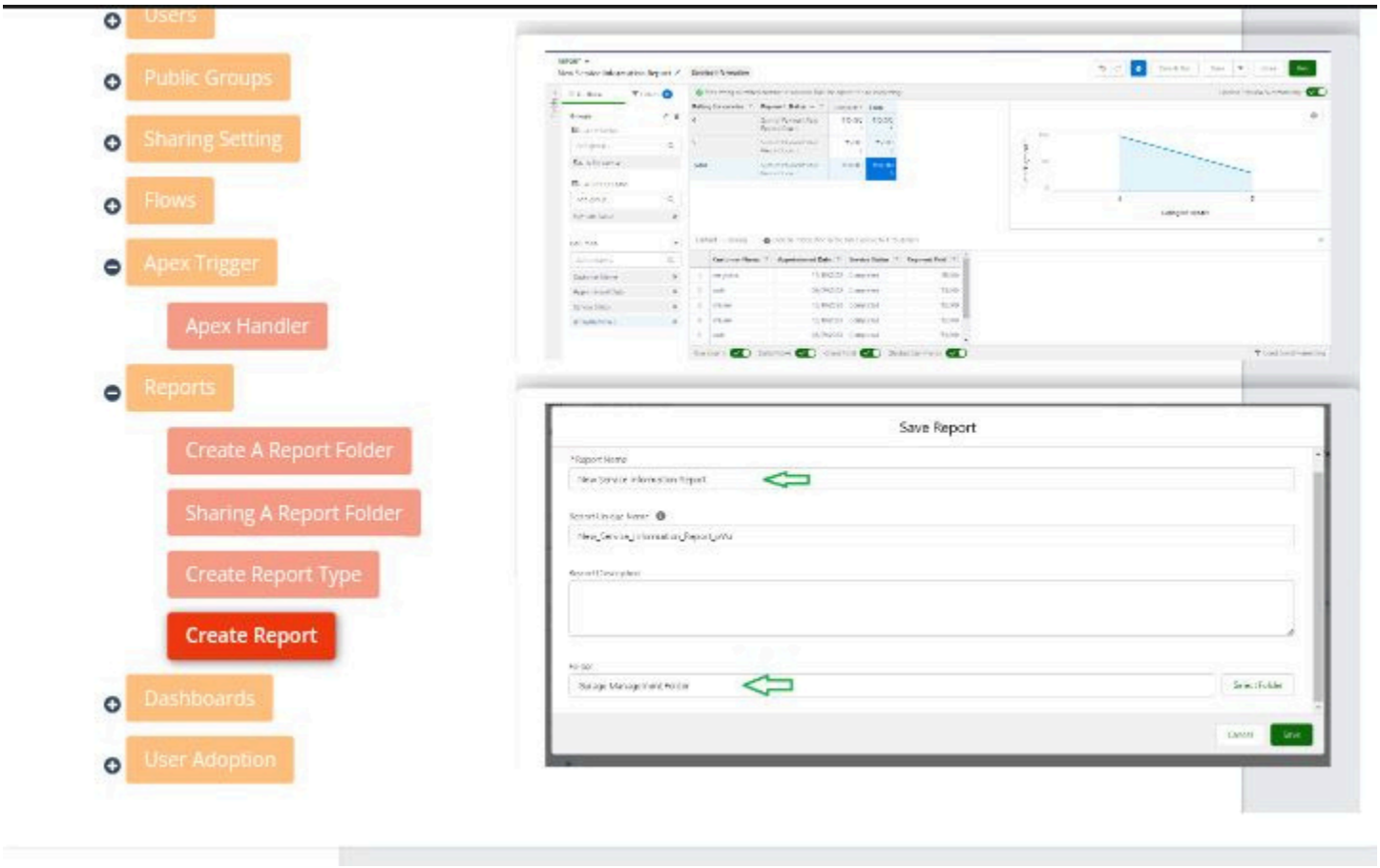
Create Report

A report is created to analyze and present Salesforce data.

Users can filter, group, and summarize records in different formats.

Reports help in tracking performance, sales, and customer activity.

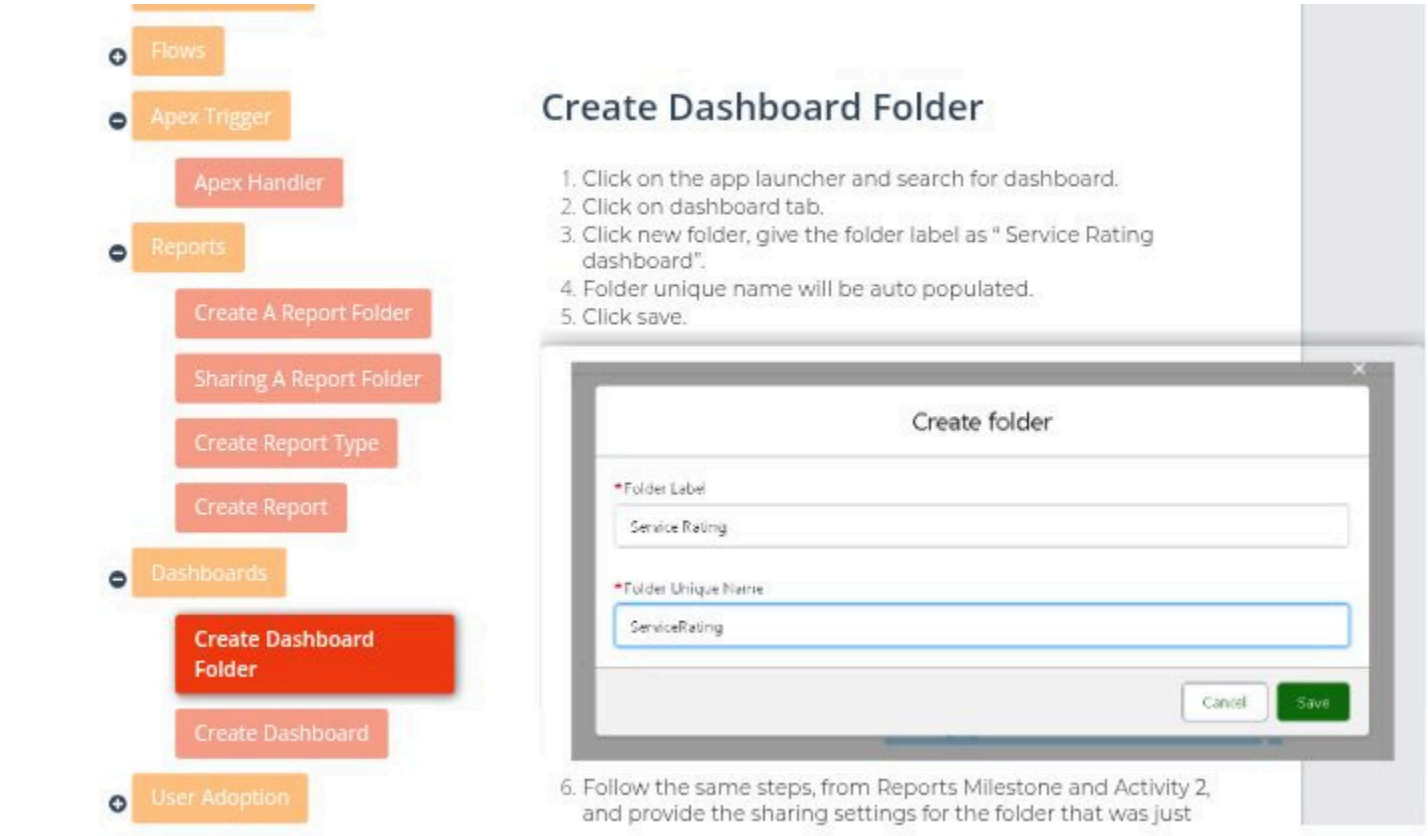
They provide insights for better decision-making.



STEP 16: DASHBOARD

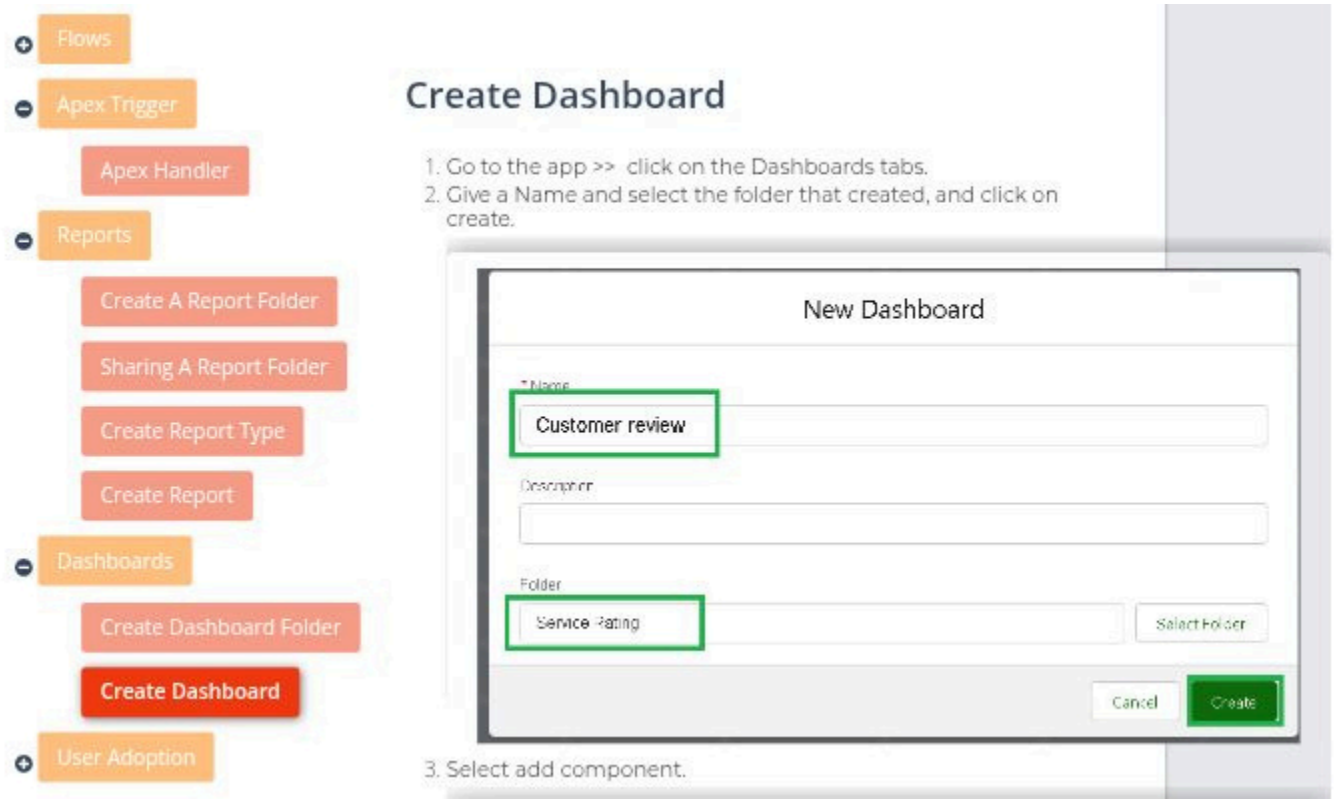
Create Dashboard Folder

A dashboard folder is created to store and organize dashboards securely.



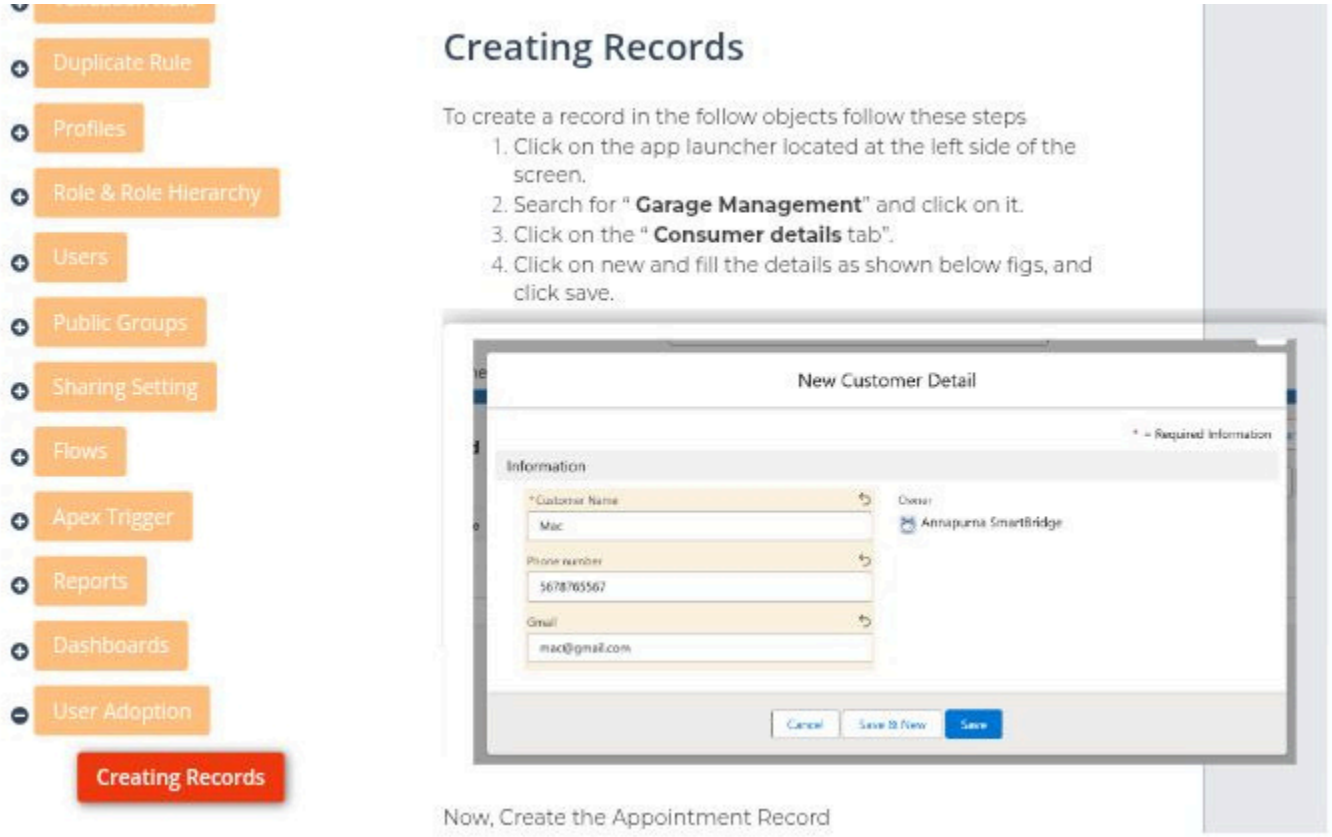
Create Dashboard

A dashboard visually represents report data using charts and graphs.



STEP 17: USER ADOPTION

1. Users are encouraged to actively create records like customers, appointments, and services.
2. This ensures real-time data entry and accuracy in the system
3. More record creation by users shows higher adoption and effective system usage.



CONCLUSION

The Garage Management System in Salesforce provides an efficient way to manage customers, appointments, services, and billing.With features like custom objects, roles, profiles, automation (flows, triggers), and reports, it ensures smooth operations.It improves data accuracy, enhances customer satisfaction, and supports decision-making through insights.Overall, the system streamlines garage activities and helps achieve better productivity and service quality.