

## **Salesforce Project**

### **Car Rental Management System**

Small rental businesses often struggle to manage car bookings, customer interactions, and fleet availability due to reliance on manual processes, phone calls, or spreadsheets. This leads to challenges such as double-bookings, delayed maintenance, missed payments, and poor customer experiences. For small businesses and startups, these inefficiencies result in reduced profitability and lower customer satisfaction.

To address these challenges, a Salesforce-based Car Rental Management System is designed to streamline the booking process, automate notifications, track maintenance, and provide real-time analytics through Salesforce Reports and Dashboards. This ensures better visibility into rental trends, fleet utilization, and customer engagement at an affordable cost.

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

#### **1. Requirement Gathering (What to Track):**

Cars (Inventory Management):

- Car ID / Serial Number
- Car Type (Sedan, SUV, Hatchback, Electric, etc.)
- Availability Status (Available, Booked, Under Maintenance)
- Rental Rate (per hour/day/week)
- Maintenance Due Date

Customers (Renter Records):

- Customer Name & Contact Info
- ID Proof Details (License/ID Card)
- Rental History (previous bookings, payment status)

Bookings/Reservations:

- Booking ID
- Car Selected
- Rental Duration (start & end date/time)
- Payment Status (Pending, Paid, Overdue)
- Linked Record (Customer Account/Contact)

## Reporting & Dashboards:

- Active Rentals (current bookings)
- Car Utilization Rate (available vs rented)
- Revenue by Car Type or Time Period
- Overdue Returns & Payments
- Top Customers (frequent renters)

## Automations (Workflow Rules/Flows):

- Auto-confirmation email/SMS after booking creation
- Reminder 24 hours before car return deadline
- Notification for overdue returns/payments
- Auto-creation of maintenance tasks after certain rental cycles

## 2. Stakeholder Analysis

- **Customer (Bike Renter):** Needs a smooth booking process, timely confirmations, and return reminders.
- **Rental Staff (End Users):** Requires an easy interface to create/update bookings, check availability, and collect payments.
- **Manager/Owner:** Needs dashboards to track rentals, revenue, and overdue returns for better decision-making.
- **Admin:** Configures custom fields, sets up flows for automations, and manages fleet/booking data.

## 3. Business Process Mapping

- **Booking Creation:** Rental staff/customer creates booking linked to a bike and a customer record.
- **Availability Check:** System ensures bike is not double-booked.
- **Confirmation & Payment:** Booking confirmation sent; payment marked (Pending/Paid).
- **Rental Execution:** Bike handed over, status changed to “Rented.”

- **Return & Closure:** Upon return, staff updates status, records payment, and schedules maintenance if needed.
- **Reporting & Insights:** Dashboards show revenue, fleet usage, overdue returns, and top-performing bikes/customers.

#### 4. Industry-Specific Use Case Analysis

- **Local Bike Rental Shops:** Centralizes booking and customer management, reducing manual work.
- **Tour Operators:** Tracks group rentals, payment status, and customer engagement.
- **Corporate Rentals:** Supports companies offering employee bike rentals with usage reports and cost tracking.

#### 5. AppExchange Exploration

Explore Salesforce AppExchange apps like:

- **Rental Management Solutions (3rd-party apps):** End-to-end rental lifecycle tools.
- **Field Service Lightning:** To track maintenance schedules and technician assignments.
- **Conga Composer:** For generating rental agreements and invoices.
- **Payment Gateway Integrations (Stripe, PayPal):** For online payments. **Why Simple & Affordable?**
- **Low Complexity:** Uses standard Salesforce objects (Accounts, Contacts, Opportunities, Assets) with minimal customization.
- **Cost-Effective:** Built using Flows, Workflow Rules, and Reports/Dashboards, compatible with Salesforce Essentials or Lightning Professional editions.
- **Scalable for Small Businesses:** Designed for rental shops with 5–100 bikes and users, providing essential functionality without expensive addons.

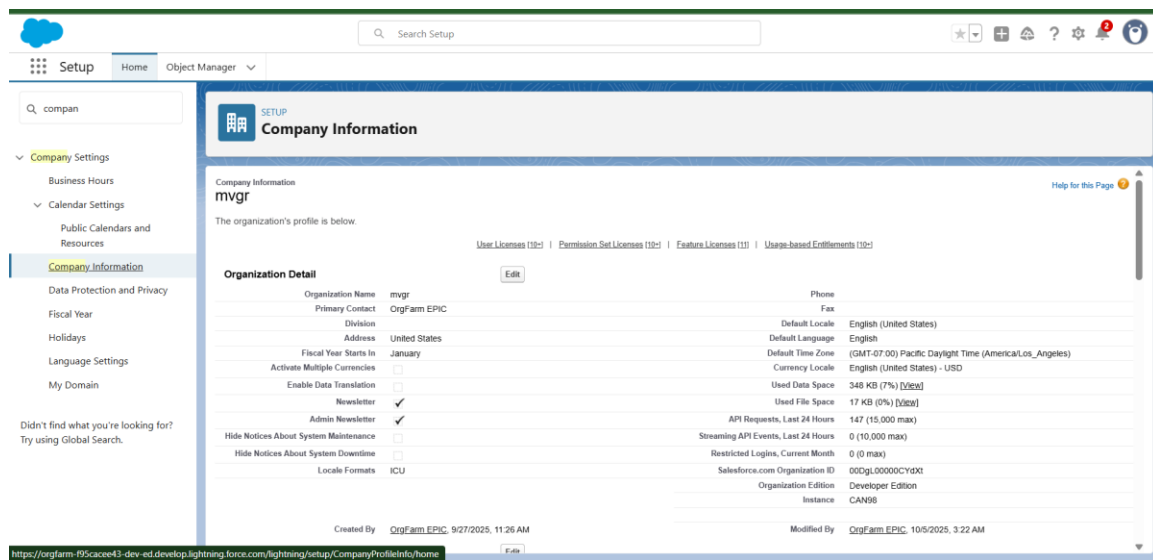
## Phase 2: Org Setup & Configuration

Purpose: Configure Salesforce org for Car Rental Management System to ensure users, profiles, roles, and security settings are correctly aligned with rental, support, and maintenance operations.

1. Salesforce Edition: Developer Edition

2. Company Profile Setup:

- Company Name, Address, Timezone → Asia/Kolkata (IST)



The screenshot shows the Salesforce Setup interface for a company named 'mvgr'. The left sidebar contains navigation links for Setup, Home, and Object Manager. The main content area is titled 'Company Information' and displays the organization's profile details. The 'Organization Detail' section includes fields for Organization Name, Primary Contact, Division, Address, Fiscal Year Start In, Activate Multiple Currencies, Enable Data Translation, Newsletter, Admin Newsletter, Hide Notices About System Maintenance, Hide Notices About System Downtime, and Locale Formats. The right sidebar shows various system settings and usage statistics, including Default Locale, Default Language, Default Time Zone, Currency Locale, Used Data Space, Used File Space, API Requests, Streaming API Events, Restricted Logins, Salesforce.com Organization ID, Organization Edition, and Instance. The bottom of the page shows the URL and the user who created and modified the profile.

Organization Detail	
Organization Name	mvgr
Primary Contact	OrgFarm EPIC
Division	
Address	United States
Fiscal Year Start In	January
Activate Multiple Currencies	<input type="checkbox"/>
Enable Data Translation	<input type="checkbox"/>
Newsletter	<input checked="" type="checkbox"/>
Admin Newsletter	<input checked="" type="checkbox"/>
Hide Notices About System Maintenance	<input type="checkbox"/>
Hide Notices About System Downtime	<input type="checkbox"/>
Locale Formats	ICU

System Settings and Usage	
Default Locale	English (United States)
Default Language	English
Default Time Zone	(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)
Currency Locale	English (United States) - USD
Used Data Space	348 KB (7%) <a href="#">Details</a>
Used File Space	17 KB (0%) <a href="#">Details</a>
API Requests, Last 24 Hours	147 (15,000 max)
Streaming API Events, Last 24 Hours	0 (10,000 max)
Restricted Logins, Current Month	0 (0 max)
Salesforce.com Organization ID	00DGL00000CYDXT
Organization Edition	Developer Edition
Instance	CAN98

Created By: OrgFarm EPIC, 9/27/2025, 11:26 AM  
Modified By: OrgFarm EPIC, 10/5/2025, 3:22 AM

3. Business Hours & Holidays:

- Rental Operations: Mon–Sun, 6 AM – 11 PM
- Customer Support: 9 AM – 8 PM
- Add regional public holidays for SLA tracking

4. Fiscal Year: Standard

5. User Setup & Licenses – Create Sample Users:

- Admin: Full access to rental and dashboard data
- Rental Manager: Manages car inventory, approves booking overrides
- Support Agent: Handles refund requests and customer complaints
- Role: Owner
- User License: Salesforce
- Profile: Owner

**SETUP Users**

User: **krishna d** [User Profile Help for this Page](#)

[Permission Set Assignments \(0\)](#) | [Permission Set Assignments: Activation Required \(0\)](#) | [Permission Set Group Assignments \(0\)](#) | [Permission Set License Assignments \(0\)](#) | [Personal Groups \(0\)](#) | [Public Group Membership \(0\)](#) | [Queue Membership \(0\)](#) | [Team \(0\)](#) | [Managers in the Role Hierarchy \(0\)](#) | [OAuth Apps \(0\)](#) | [Third-Party Account Links \(0\)](#) | [Built-In Authenticators \(0\)](#) | [Installed Mobile Apps \(0\)](#) | [Authentication Settings for External Systems \(0\)](#) | [Login History \(0-1\)](#) | [User Provisioning Accounts \(0\)](#)

**User Detail** [Edit](#) [Sharing](#) [Reset Password](#) [Freeze](#) [View Summary](#)

Name	krishna d	Role	owner
Alias	krish	User License	Salesforce
Email	<a href="mailto:krish.dasan@878@gmail.com">krish.dasan@878@gmail.com</a> <a href="#">Verify</a>	Profile	owner
Username	krish@878gmail.com	Active	<input checked="" type="checkbox"/>
Nickname	User17596624824321208653 <a href="#">i</a>	Marketing User	<input type="checkbox"/>
Title		Offline User	<input type="checkbox"/>
Company		Knowledge User	<input type="checkbox"/>
Department		Flow User	<input type="checkbox"/>
Division		Service Cloud User	<input type="checkbox"/>
Address		Site.com Contributor User	<input type="checkbox"/>
Time Zone	(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)	Site.com Publisher User	<input type="checkbox"/>
Locale	English (United States)	WDC User	<input type="checkbox"/>
Language	English	Mobile Push Registrations	<a href="#">View</a>
Delegated Approver		Data.com User Type	<a href="#">i</a>
Manager		Accessibility Mode (Classic Only)	<input type="checkbox"/> <a href="#">i</a>
Receive Approval Request Emails	Only if I am an approver	Debug Mode	<input type="checkbox"/> <a href="#">i</a>
Federation ID		High Contrast Palette on Charts	<input type="checkbox"/> <a href="#">i</a>

- Role: agent
- User License: Salesforce platform
- Profile: agent

**SETUP Users**

User: **murthy d** [User Profile Help for this Page](#)

[Permission Set Assignments \(0\)](#) | [Permission Set Assignments: Activation Required \(0\)](#) | [Permission Set Group Assignments \(0\)](#) | [Permission Set License Assignments \(0\)](#) | [Personal Groups \(0\)](#) | [Public Group Membership \(0\)](#) | [Queue Membership \(0\)](#) | [Team \(0\)](#) | [Managers in the Role Hierarchy \(1\)](#) | [OAuth Apps \(0\)](#) | [Third-Party Account Links \(0\)](#) | [Built-In Authenticators \(0\)](#) | [Installed Mobile Apps \(0\)](#) | [Authentication Settings for External Systems \(0\)](#) | [Login History \(0-1\)](#) | [User Provisioning Accounts \(0\)](#)

**User Detail** [Edit](#) [Sharing](#) [Reset Password](#) [Freeze](#) [View Summary](#)

Name	murthy d	Role	agent
Alias	murthy	User License	Salesforce Platform
Email	<a href="mailto:murthy.dasan@878@gmail.com">murthy.dasan@878@gmail.com</a> <a href="#">Verify</a>	Profile	agent
Username	murthy.d@gmail.com	Active	<input checked="" type="checkbox"/>
Nickname	User17596626410134545576 <a href="#">i</a>	Marketing User	<input type="checkbox"/>
Title		Offline User	<input type="checkbox"/>
Company		Knowledge User	<input type="checkbox"/>
Department		Flow User	<input type="checkbox"/>
Division		Service Cloud User	<input type="checkbox"/>
Address		Site.com Contributor User	<input type="checkbox"/>
Time Zone	(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)	Site.com Publisher User	<input type="checkbox"/>
Locale	English (United States)	WDC User	<input type="checkbox"/>
Language	English	Mobile Push Registrations	<a href="#">View</a>
Delegated Approver		Data.com User Type	<a href="#">i</a>
Manager		Accessibility Mode (Classic Only)	<input type="checkbox"/> <a href="#">i</a>
Receive Approval Request Emails	Only if I am an approver	Debug Mode	<input type="checkbox"/> <a href="#">i</a>
Federation ID		High Contrast Palette on Charts	<input type="checkbox"/> <a href="#">i</a>

## 6. Profiles:

- Admin: Full access
- Rental Manager: Manage cars, bookings, refunds
- Support Agent: Limited to bookings and refund requests
- Technician: Manage maintenance records

- Receptionist: Create bookings only

**SETUP Profiles**

Profile: **owner**

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.

Login IP Ranges (0) | Enabled Apex Class Access (2) | Enabled Visualforce Page Access (0) | Enabled External Data Source Access (0) | Enabled Named Credential Access (0) | Enabled External Credential Principal Access (0) | Enabled Custom Metadata Type Access (0) | Enabled Custom Setting Definitions Access (0) | Enabled Flow Access (0) | Enabled Service Presence Status Access (0) | Enabled Custom Permissions (0)

**Profile Detail** [Edit] [Clone] [Delete] [View Users]

Name	owner		
User License	Salesforce	Custom Profile	<input checked="" type="checkbox"/>
Description			
Created By	Krishna Dasari	Modified By	Krishna Dasari
	10/5/2025, 4:03 AM		10/5/2025, 4:04 AM

**Page Layouts**

**Standard Object Layouts**

Global	Global Layout [View Assignment]	Location Group Assignment	Location Group Assignment Layout [View Assignment]
Email Application	Not Assigned [View Assignment]	Macro	Macro Layout [View Assignment]
Home Page Layout	Home Page Default [View Assignment]	Object Milestone	Object Milestone Layout [View Assignment]
Account	Account Layout [View Assignment]	Operating Hours	Operating Hours Layout [View Assignment]
Alternative Payment Method	Alternative Payment Method Layout [View Assignment]	Opportunity	Opportunity Layout [View Assignment]
Appointment Invitation	Appointment Invitation Layout	Opportunity Product	Opportunity Product Layout

**SETUP Profiles**

Profile: **agent**

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.

Login IP Ranges (0) | Enabled Apex Class Access (2) | Enabled Visualforce Page Access (0) | Enabled External Data Source Access (0) | Enabled Named Credential Access (0) | Enabled External Credential Principal Access (0) | Enabled Custom Metadata Type Access (0) | Enabled Custom Setting Definitions Access (0) | Enabled Flow Access (0) | Enabled Service Presence Status Access (0) | Enabled Custom Permissions (0)

**Profile Detail** [Edit] [Clone] [Delete] [View Users]

Name	agent		
User License	Salesforce Platform	Custom Profile	<input checked="" type="checkbox"/>
Description			
Created By	Krishna Dasari	Modified By	Krishna Dasari
	10/5/2025, 4:04 AM		10/5/2025, 4:05 AM

**Page Layouts**

**Standard Object Layouts**

Global	Global Layout [View Assignment]	Lead	Lead Layout [View Assignment]
Email Application	Not Assigned [View Assignment]	Location	Location Layout [View Assignment]
Home Page Layout	Home Page Default [View Assignment]	Location Group	Location Group Layout [View Assignment]
Account	Account Layout [View Assignment]	Location Group Assignment	Location Group Assignment Layout [View Assignment]
Alternative Payment Method	Alternative Payment Method Layout [View Assignment]	Object Milestone	Object Milestone Layout [View Assignment]
Appointment Invitation	Appointment Invitation Layout	Operating Hours	Operating Hours Layout


## 7.Roles(Hierarchy Structure):

Sample structure:

Admin > Rental Manager > Support Agent / Technician > Receptionist

- Expanded explanations for each role (Admin, Rental Manager, Support Agent, Technician, Receptionist).
- Include their key responsibilities, Salesforce permissions, and day-to-day activities.

- Optional roles like Finance Officer and Marketing Executive for a complete organization hierarchy.
- Keep the same formal tone and formatting as your Word document.



SETUP

Roles

### Creating the Role Hierarchy

You can build on the existing role hierarchy shown on this page. To insert a new role, click **Add Role**.

**Your Organization's Role Hierarchy**

[Collapse All](#) [Expand All](#)

- mvgr
  - Add Role
  - CEO [Edit](#) | [Del](#) | [Assign](#)
    - Add Role
    - CFO [Edit](#) | [Del](#) | [Assign](#)
      - Add Role
      - COO [Edit](#) | [Del](#) | [Assign](#)
        - Add Role
        - owner [Edit](#) | [Del](#) | [Assign](#)
          - Add Role
          - agent [Edit](#) | [Del](#) | [Assign](#)
            - Add Role
  - SVP, Customer Service & Support [Edit](#) | [Del](#) | [Assign](#)
    - Add Role
    - Customer Support, International [Edit](#) | [Del](#) | [Assign](#)
      - Add Role
      - Customer Support, North America [Edit](#) | [Del](#) | [Assign](#)
        - Add Role
        - Installation & Repair Services [Edit](#) | [Del](#) | [Assign](#)
          - Add Role

8. Permission Sets: Assign report and dashboard access to Rental Managers & Support Agents

9. OWD & Sharing Rules:

- Customers / Contacts: Private
- Bookings / Rentals: Private
- Refund Requests: Private
- Sharing Rule: Share each booking and refund only with assigned Support Agent or Manager

10. Login Access Policies: Admin can login as any user

11. Sandbox Usage & Deployment Basics:

Optional used for testing refund workflows and automation setup before moving to production

## Phase 3: Data Modeling & Relationships

Purpose: Design Salesforce objects and relationships for managing customers, car rentals, payments, refunds, and maintenance data.

### 1. Custom Objects:

- A detailed explanation of each custom object in the Car Rental Management System (Car Bookings, Car Fleet, Billing, Customers/Users, Maintenance, etc.).
- For each object:
  - Purpose, Key fields, Relationships (Master-Detail / Lookup)
  - Example records, Add real-world mapping

#### • Car rental

The screenshot shows the Salesforce Setup interface for the 'car rental' custom object. The left sidebar contains a list of configuration options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, and Scoping Rules. The 'Details' section is selected, showing the following information:

Details	
Description	
API Name	car_rental__c
Custom	✓
Singular Label	car rental
Plural Label	car_rentals
Enable Reports	✓
Track Activities	✓
Track Field History	✓
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

Buttons for 'Edit' and 'Delete' are located in the top right corner of the details section.

#### • Billing process

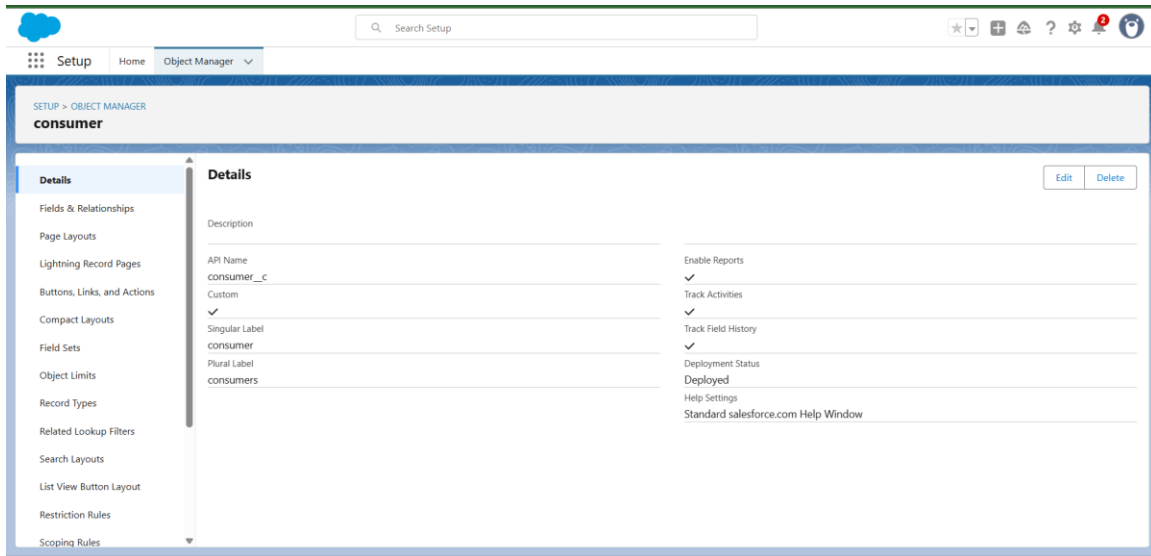
The screenshot shows the Salesforce Setup interface for the 'billing process' custom object. The left sidebar contains a list of configuration options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, and Scoping Rules. The 'Details' section is selected, showing the following information:

Details	
Description	
API Name	billing_process__c
Custom	✓
Singular Label	billing process
Plural Label	billing process
Enable Reports	✓
Track Activities	✓
Track Field History	✓
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

Buttons for 'Edit' and 'Delete' are located in the top right corner of the details section.



- Consumer

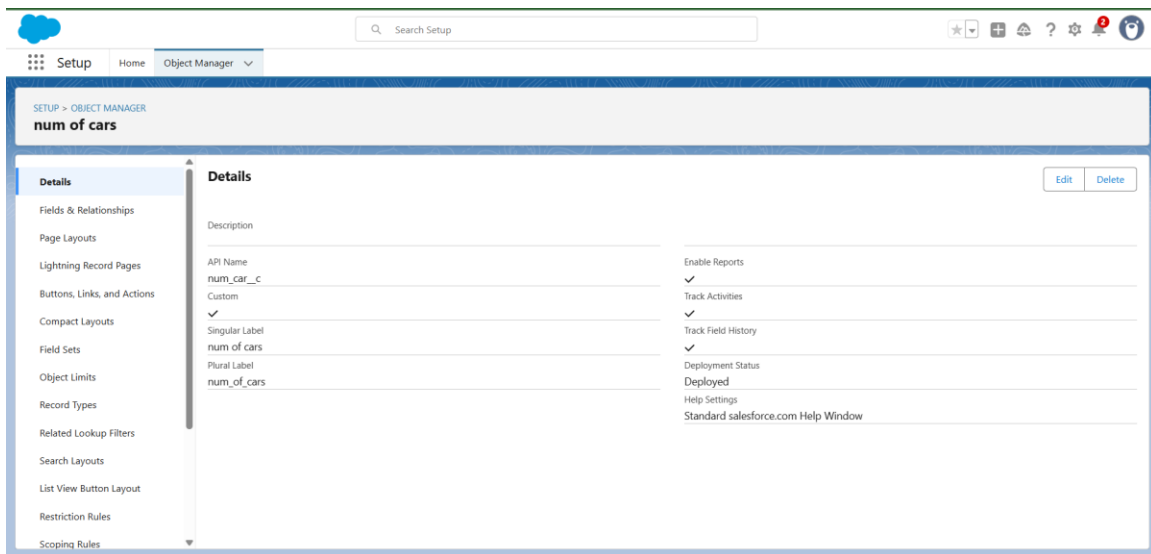


The screenshot shows the Salesforce Setup interface for the 'consumer' object. The left sidebar contains a 'Details' menu with options: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, and Scoping Rules. The main content area is titled 'Details' and contains the following fields:

Field	Value
Description	
API Name	consumer__c
Custom	✓
Singular Label	consumer
Plural Label	consumers
Enable Reports	✓
Track Activities	✓
Track Field History	✓
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

Buttons: Edit, Delete

- Num of cars



The screenshot shows the Salesforce Setup interface for the 'num of cars' object. The left sidebar contains a 'Details' menu with options: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, and Scoping Rules. The main content area is titled 'Details' and contains the following fields:

Field	Value
Description	
API Name	num_car__c
Custom	✓
Singular Label	num of cars
Plural Label	num_of_cars
Enable Reports	✓
Track Activities	✓
Track Field History	✓
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

Buttons: Edit, Delete

## 2. Fields and Relationships:

### Car rental

- Amount
- Car Name
- Email
- Days
- Total Cars

Setup Home Object Manager

car rental

Details

**Fields & Relationships**

10 Items, Sorted by Field Label

Quick Find New Deleted Fields Field Dependencies Set History Tracking

amount	amount__c	Currency(18, 0)		
car available	car_available__c	Formula (Number)		
car names	car_names__c	Picklist		
car rental	Name	Text(80)	✓	
consumer	consumer__c	Master-Detail(consumer)	✓	
Created By	CreatedById	Lookup(User)		
email	email__c	Email		
how many days	how_many_days__c	Picklist		
Last Modified By	LastModifiedById	Lookup(User)		
num of cars	num_of_cars__c	Master-Detail(num of cars)	✓	

Page Layouts Lightning Record Pages Buttons, Links, and Actions Compact Layouts Field Sets Object Limits Record Types Related Lookup Filters Search Layouts List View Button Layout Restriction Rules Scoping Rules

## Billing process

- Amount
- Booking
- User
- Payment mode
- Name
- Email
- Address

Setup Home Object Manager

billing process

Details

**Fields & Relationships**

7 Items, Sorted by Field Label

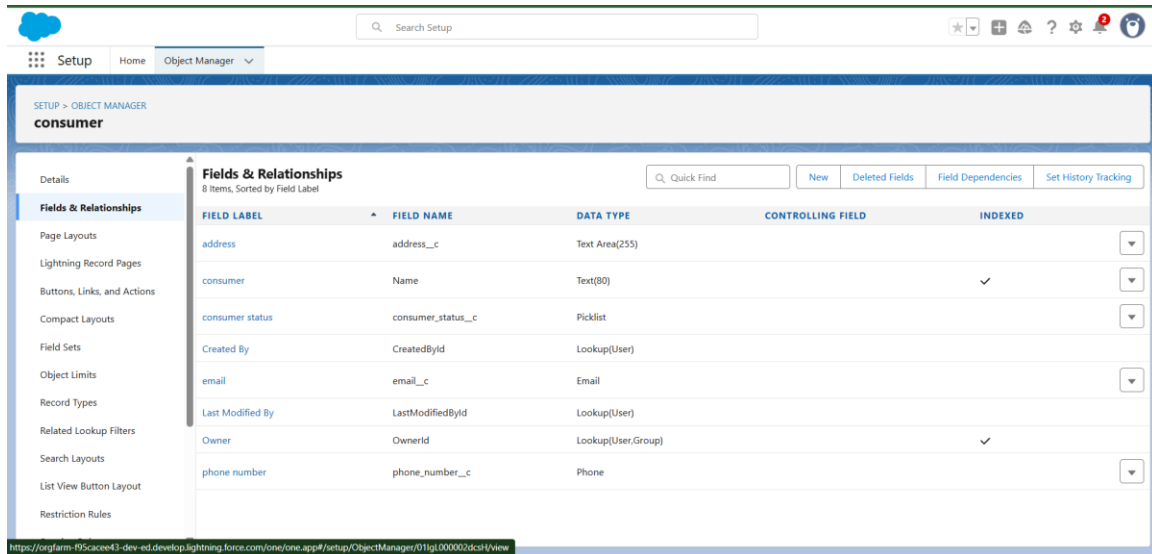
Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
amount	amount__c	Formula (Currency)		
billing process	Name	Text(80)		✓
car rental	car_rental__c	Lookup(car rental)		✓
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
name	name__c	Master-Detail(consumer)		✓
payment mode	payment_mode__c	Picklist		

Page Layouts Lightning Record Pages Buttons, Links, and Actions Compact Layouts Field Sets Object Limits Record Types Related Lookup Filters Search Layouts List View Button Layout Restriction Rules Scoping Rules

## Consumer

- Name
- Email
- Address
- Status

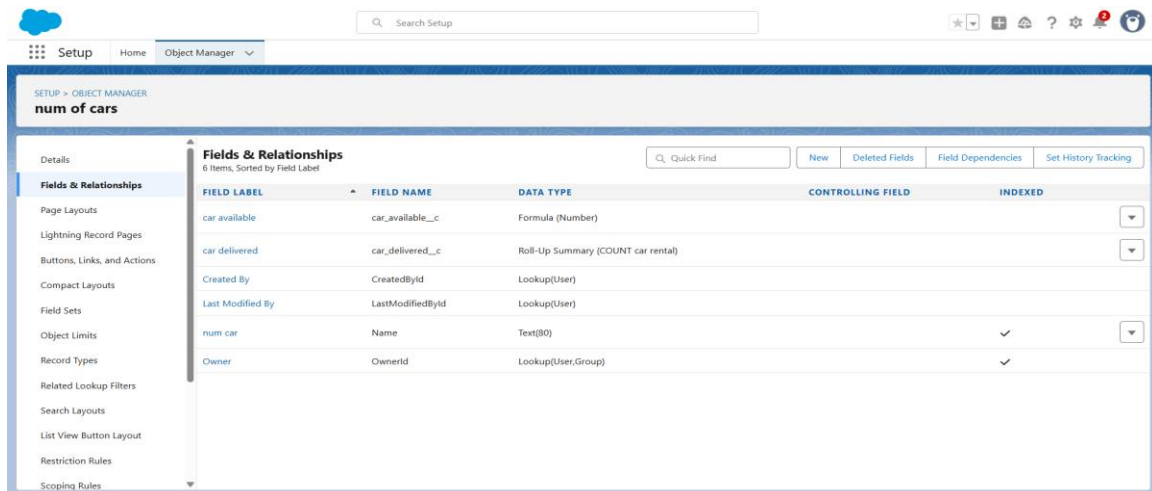


The screenshot shows the Salesforce Setup interface for the 'consumer' object. The 'Fields & Relationships' section is active, displaying a table of 8 fields. The table has columns for Field Label, Field Name, Data Type, Controlling Field, and Indexed status. The fields listed are: address (Text Area), consumer (Text), consumer status (Picklist), Created By (Lookup), email (Email), Last Modified By (Lookup), Owner (Lookup), and phone number (Phone).

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
address	address__c	Text Area(255)		
consumer	Name	Text(80)		✓
consumer status	consumer_status__c	Picklist		
Created By	CreatedById	Lookup(User)		
email	email__c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
phone number	phone_number__c	Phone		

## Num of cars

- Available Cars
- Delivered Cars
- Owner



The screenshot shows the Salesforce Setup interface for the 'num of cars' object. The 'Fields & Relationships' section is active, displaying a table of 6 fields. The table has columns for Field Label, Field Name, Data Type, Controlling Field, and Indexed status. The fields listed are: car available (Formula), car delivered (Roll-Up Summary), Created By (Lookup), Last Modified By (Lookup), num car (Text), and Owner (Lookup).

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
car available	car_available__c	Formula (Number)		
car delivered	car_delivered__c	Roll-Up Summary (COUNT car rental)		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
num car	Name	Text(80)		✓
Owner	OwnerId	Lookup(User,Group)		✓

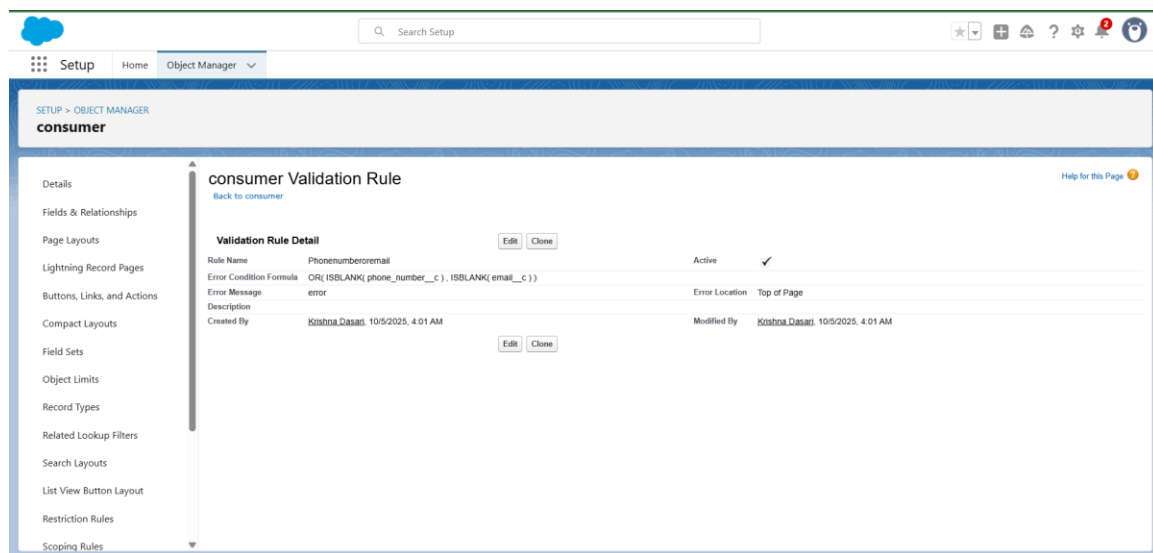
3. Record Types & Page Layouts – Default record type used for all.
4. Compact Layouts – Key fields: Booking Name, Status, Car Name, Days.
5. Schema Builder – Visual view of Car Booking, Billing, Users, and Car Fleet.

## Phase 4: Process Automation (Admin)

Purpose: Automate repetitive tasks, notifications, and follow-ups.

### 1. Validation Rules:

- Return Date >= Start Date
- Car Availability = Yes
- Customer Age >= 18



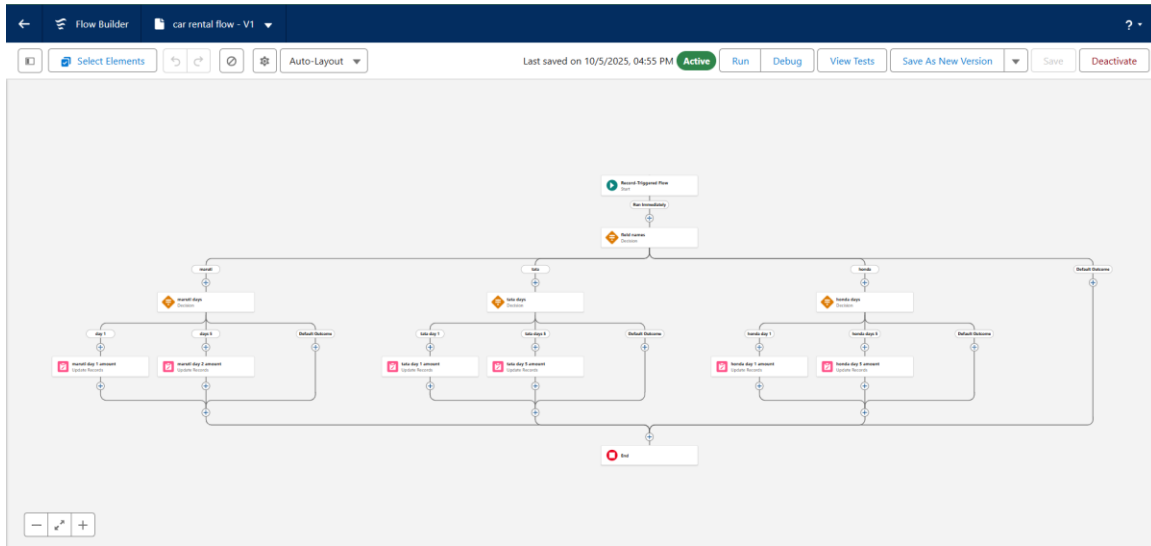
### 2. Workflow / Process Builder:

- Notify Admin when car is booked or returned late
- Auto-assign rental plan
- Flag overdue rentals

### 3. Flow Builder:

- Auto-create Active Rentals report
- Send maintenance reminders

- Notify customers of returns



## Phase 5: Apex Programming (Developer)

Purpose: Use Apex code for advanced automation.

### 1. Triggers:

- On Booking Insert – Assign rental plan
- On Status Update – Notify Admin if overdue
- On Maintenance Update – Notify Technician

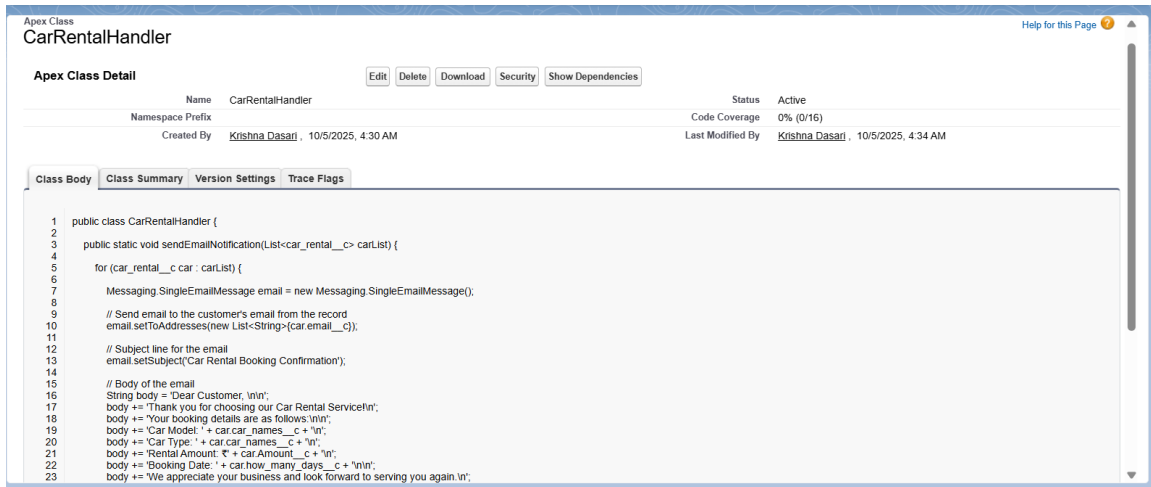
### 2. Helper Classes:

- Calculate rental status, maintenance priority, loyalty points

### 3. Batch/Queueable Apex:

- Bulk update active rentals
- Generate monthly reports

### 4. Test Classes – Ensure trigger and batch execution.

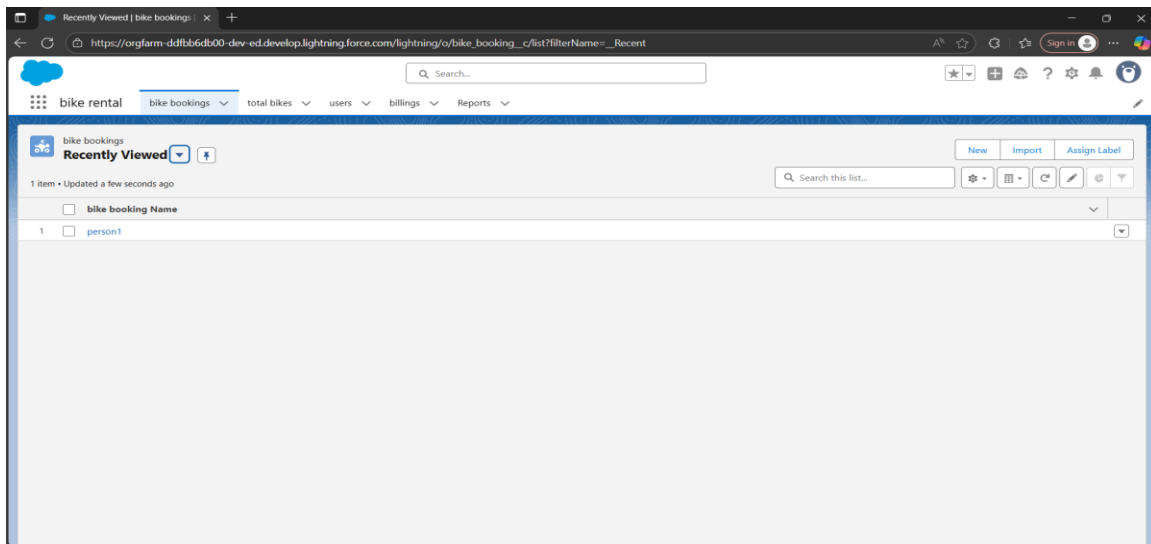


## Phase 6: User Interface Development

Purpose: Create a user-friendly interface.

### 1. Create Car Rental App in Lightning App Builder

- Name: Car Rental Management
- Include logo and branding



### 2. Add Tabs: Cars, Customers, Bookings, Maintenance, Reports, Dashboards

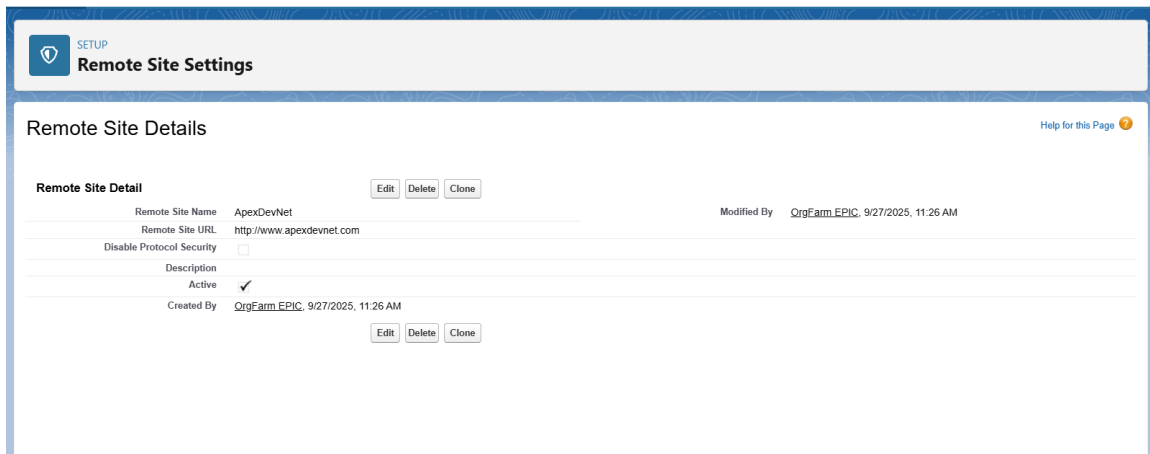
### 3. Customize Record Pages for Customers, Cars, and Bookings

### 4. Add Dashboards showing key metrics like rentals and maintenance.

## Phase 7: Integration & External Access

Purpose: Integrate Salesforce with external APIs for email, SMS, and payments.

1. Named Credentials – Email, SMS, Payment Gateway, Marketing API
2. Platform Events – Notify admin/support when car is overdue or damaged
3. Remote Site Settings – Enable external API access



## Phase 8: Data Management & Deployment

Purpose: Ensure smooth data migration and deployment.

1. Data Import Wizard – For small datasets like Customers or Cars
2. Data Loader – For bulk uploads or updates
3. Duplicate Rules – Prevent duplicate customer or car entries
4. Change Sets – Deploy configurations from sandbox to production
5. Data Export – Monthly backups of customers, cars, and bookings

[Insert Screenshot Here – Data Loader Interface]

## Phase 9: Reporting, Dashboards & Security Review

Purpose: Track car usage, rentals, and maintenance status.

Reports:

- Active / Overdue Rentals
- Maintenance Tasks

- Rentals per Car Type

Report: total bikes with bike bookings and users  
**bike report**

Enable Field Editing

Total Records: 1    Total bike available: 49

<input type="checkbox"/> types of versions ↑	total bikes: total bikes Name	bike booking: bike booking Name	users: users Name	bike available
<input type="checkbox"/> intermediate (1)	5	person1	person1	49
Subtotal				49
Total (1)				49

Search...

bike rental   bike bookings   total bikes   users   billings   Reports

Reports

Recent

1 item

Search recent reports...   New Report   New Folder

REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	bike report		Private Reports	Donkapali Likhitha Likhitha	10/5/2025, 2:48 AM	✓

Created by Me

Private Reports

Public Reports

All Reports

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

All Favorites

## Dashboards:

- Donut Chart – Active vs Overdue Rentals
- Bar Chart – Rentals per Staff Member
- Line Chart – Revenue Over Time

Recently Viewed | bike bookings

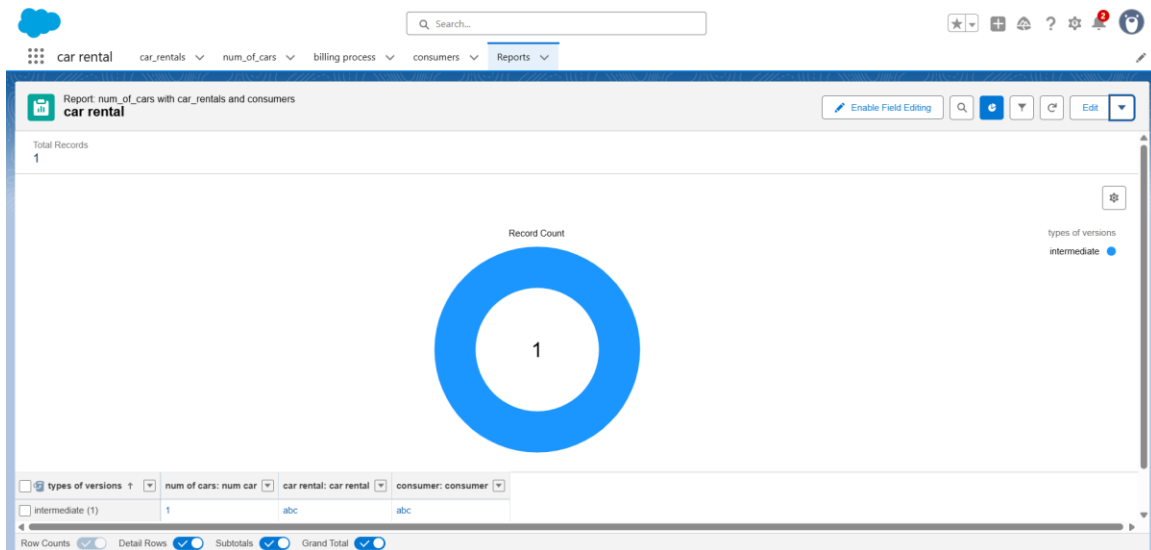
1 item • Updated a few seconds ago

Search this list...

New   Import   Assign Label

bike booking Name
1   person1





car\_rentals

Recently Viewed

1 item • Updated a few seconds ago

Search this list...

car rental
1 abc

num\_of\_cars

Recently Viewed

1 item • Updated a few seconds ago

Search this list...

num car
1 1

[https://cxfarm-9f5cace43-dev-ed.develop.lightning.force.com/lightning/s/num\\_car\\_c/ho...](https://cxfarm-9f5cace43-dev-ed.develop.lightning.force.com/lightning/s/num_car_c/ho...)

Security:

- Field-Level Security for sensitive data
- Role-based access and audit trails

### **Phase 10: Final Presentation & Demo Day**

Purpose: Showcase the Car Rental Management System features.

Pitch:

- Highlight challenges and Salesforce solution

Demo Steps:

1. Create Customer
2. Add Car
3. Book Rental
4. Trigger Notifications
5. Display Dashboards