

Project Documentation: CRM Application for Laptop Rentals

Category: Salesforce

Skills Required:

- **Salesforce Developer**

Project Overview: The CRM Application for Laptop Rentals is designed to streamline the process of renting laptops to customers. The application leverages Salesforce's powerful CRM capabilities to enhance customer experience, optimize store operations, and improve overall efficiency. The application also includes features to effectively communicate with potential customers through email.

Features and Functionalities:

- **Total Laptops Management:** Track and manage the inventory of laptops available for rent.
- **Consumer Management:** Manage customer details and interactions.
- **Laptop Booking Process:** Handle laptop booking requests and manage bookings.
- **Billing Process:** Manage billing and payment processes for laptop rentals.
- **User Roles and Profiles:** Define roles like Owner and Agent to manage different levels of access within the application.
- **Validation Rules:** Ensure data accuracy and completeness.
- **Automation via Flows and Apex:** Automate key processes such as laptop distribution using Salesforce Flows and Apex triggers.
- **Reports and Dashboards:** Generate insightful reports and visualize data on the dashboard.

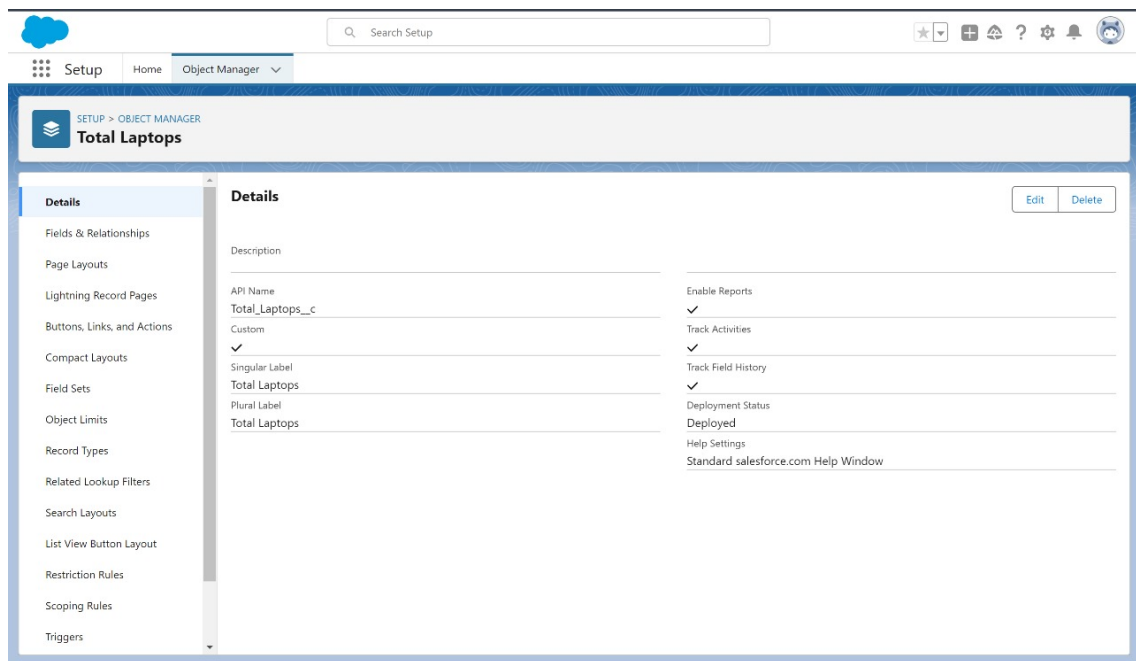
Detailed Setup Instructions:

1. Creating Custom Objects

- **Navigate to Setup:** Go to the Setup page and click on Object Manager.
- **Create Custom Object:** Total Laptops
- Click on Create > Custom Object.
- **Enter the following details:**
 - Label Name: Total Laptops
 - Plural Label Name: Total Laptops
 - Record Name Label: Total Laptops
 - Data Type: Text
 - Enable the following options:
 - Allow Reports
 - Allow Search
 - Track Field History
- Click Save.

- Repeat for the following Custom Objects:
 - Consumer
 - Laptop Booking
 - Billing Process

Total Laptops Object:

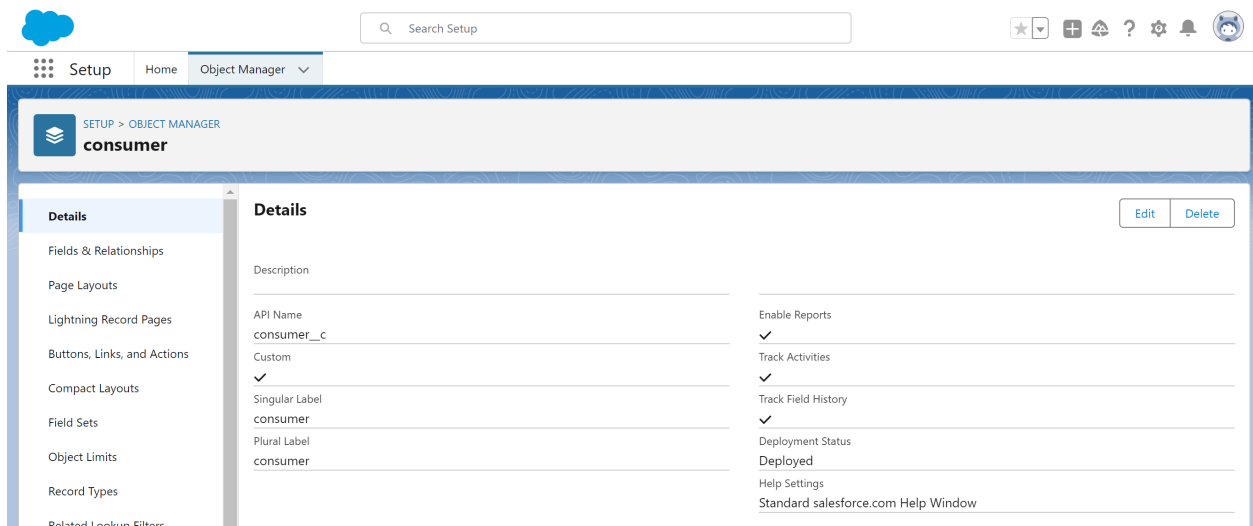


The screenshot shows the Salesforce Setup interface for the 'Total Laptops' custom object. The left sidebar contains a list of configuration options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record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

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

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

Consumer Object:



The screenshot shows the Salesforce Setup interface for the 'consumer' 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, Scoping Rules, and Triggers. The 'Details' section is selected, showing the following information:

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

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

Laptop Booking Object:

The screenshot shows the Salesforce Setup interface for the 'Laptop Bookings' object. The top navigation bar includes the Salesforce logo, a search bar, and various utility icons. The left sidebar shows the 'Setup' menu with 'Object Manager' selected. The main content area is titled 'Laptop Bookings' and displays the 'Details' tab. The details section includes a description, API Name (Laptop_Bookings__c), Custom (checked), Singular Label (Laptop Bookings), Plural Label (Laptop Bookings), and a list of settings: Enable Reports (checked), Track Activities (checked), Track Field History (checked), Deployment Status (Deployed), and Help Settings (Standard salesforce.com Help Window). Buttons for 'Edit' and 'Delete' are visible in the top right corner.

Billing Process Object:

The screenshot shows the Salesforce Setup interface for the 'Billing Process' object. The top navigation bar includes the Salesforce logo, a search bar, and various utility icons. The left sidebar shows the 'Setup' menu with 'Object Manager' selected. The main content area is titled 'Billing Process' and displays the 'Details' tab. The details section includes a description, API Name (Billing_Process__c), Custom (checked), Singular Label (Billing Process), Plural Label (Billing Process), and a list of settings: Enable Reports (checked), Track Activities (checked), Track Field History (checked), Deployment Status (Deployed), and Help Settings (Standard salesforce.com Help Window). Buttons for 'Edit' and 'Delete' are visible in the top right corner.

2. Creating Tabs

- Navigate to Setup: Type Tabs in the Quick Find bar and select Tabs.
- Create a New Tab:

- Click on New under Custom Object Tabs.
- Select Object: Total Laptops
- Choose a Tab Style.
- Click Next and keep the default settings on the profiles page.
- Uncheck Include Tab in Custom App and ensure Append tab to users' existing personal customizations is checked.
- Click Save.
- Repeat for the following Custom Objects:
 - Consumer
 - Laptop Booking
 - Billing Process

Tabs:

The screenshot displays the Salesforce Setup interface for Custom Tabs. The left sidebar shows the navigation menu with 'Setup' selected. The main content area is titled 'Custom Tabs' and includes a search bar. Below the title, there is a table of Custom Object Tabs. The table has four columns: Action, Label, Tab Style, and Description. The rows are: 'Billing Process' with a Credit card icon, 'consumer' with a People icon, 'Laptop Bookings' with a Computer icon, and 'Total Laptops' with a Laptop icon. Below the table, there are three sections: 'Web Tabs', 'Visualforce Tabs', and 'Lightning Component Tabs', each with a 'New' button and a 'What Is This?' link. The 'Web Tabs' section shows 'No Web Tabs have been defined'. The 'Visualforce Tabs' section shows 'No Visualforce Tabs have been defined'. The 'Lightning Component Tabs' section shows 'No Lightning component tabs have been defined'.

3. Creating a Lightning App Page

- Navigate to App Manager: Go to the Setup page and search for App Manager in the Quick Find bar.
- Create a New Lightning App:
 - Click on New Lightning App.
 - Fill in the App Name: LAPTOP RENTALS.
 - Click Next and keep the default settings on the App Options and Utility Items pages.

- Upload a related photo for the app.
- Add Navigation Items:
 - Select Total Laptops, Consumer, Laptop Booking, Billing Process from the search bar and move them using the arrow button.
- Add User Profiles:
 - Search for System Administrator in the search bar and add it to the app.
- Click Save & Finish.

App Details:

The screenshot shows the 'App Details & Branding' configuration page in the Lightning App Builder. The page is divided into two main sections: 'App Details' and 'App Branding'.

App Details:

- *App Name:** LAPTOP RENTALS
- *Developer Name:** LAPTOP_RENTALS
- Description:** Enter a description...

App Branding:

- Image:** A placeholder image showing a laptop and a tablet.
- Primary Color Hex Value:** #0070D2
- Org Theme Options:** ☐ Use the app's image and color instead of the org's custom theme
- App Launcher Preview:** A preview of the app launcher showing the app icon and the text 'LAPTOP RENTALS'.

App Navigation:

Lightning App Builder

App Settings

Pages

LAPTOP RENTALS

Help

App Settings

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

Navigation Items

Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.

Available Items

Type to filter list...

Accounts

All Sites

Alternative Payment Methods

Analytics

App Launcher

Appointment Categories

Appointment Invitations

Approval Requests

Asset Action Sources

Asset Actions

Asset State Periods

Assets

Selected Items

Total Laptops

consumer

Laptop Bookings

Billing Process

App User Profile:

Lightning App Builder

App Settings

Pages

LAPTOP RENTALS

Help

App Settings

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

User Profiles

Choose the user profiles that can access this app.

Available Profiles

Type to filter list...

Agent

Analytics Cloud Integration User

Analytics Cloud Security User

Authenticated Website

Authenticated Website

B2B Reordering Portal Buyer Profile

Contract Manager

Custom: Marketing Profile

Custom: Sales Profile

Custom: Support Profile

Customer Community Login User

Customer Community Plus Login User

Selected Profiles

System Administrator

4. Adding Fields to the Objects

- Follow the standard Salesforce procedure to add necessary fields to the Total Laptops, Consumer, Laptop Booking, and Billing Process objects.

Total Laptop Fields:

6

Ch.Y.S.Prasanth

Setup Home Object Manager

Search Setup

Setup > OBJECT MANAGER

Total Laptops

Details

Fields & Relationships

6 Items, Sorted by Field Label

Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Laptops Available	Laptops_Available__c	Formula (Number)		
Laptops delivered	Laptops_delivered__c	Roll-Up Summary (COUNT Laptop Bookings)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Total Laptops	Name	Text(80)		✓

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
Triggers

Consumer Fields:

Setup Home Object Manager

Search Setup

Setup > OBJECT MANAGER

consumer

Details

Fields & Relationships

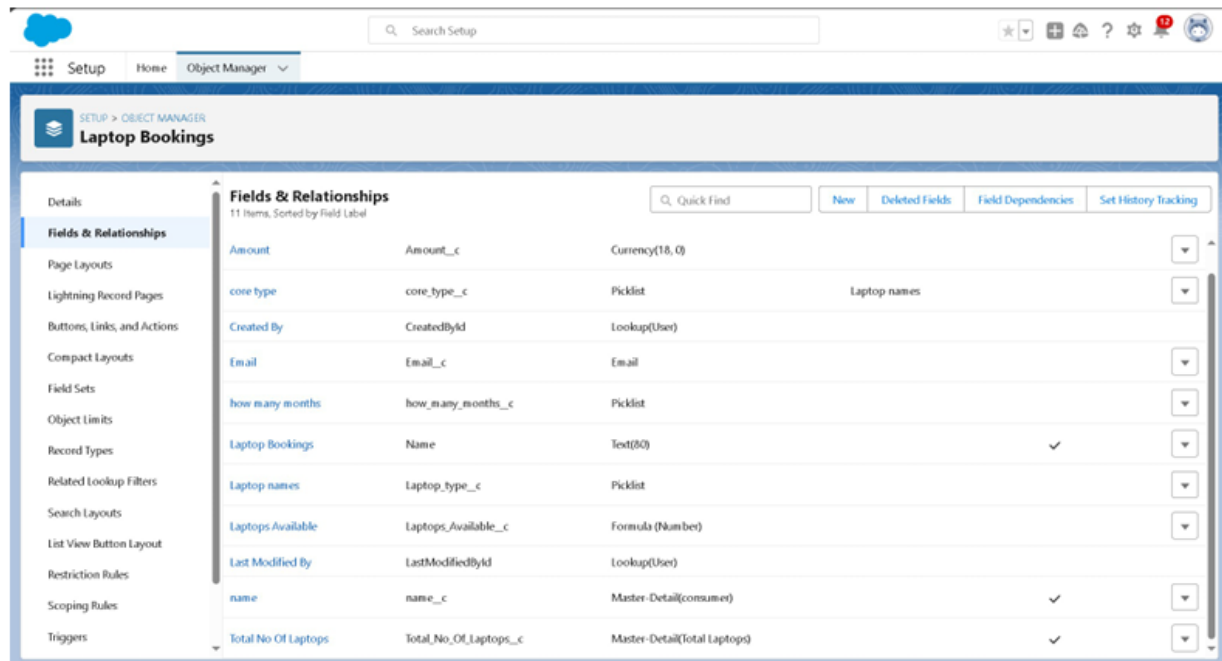
8 Items, Sorted by Field Label

Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address__c	Text Area(255)		
consumer Status	consumer_Status__c	Picklist		
consumer_name	Name	Text(50)		✓
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		

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
Triggers

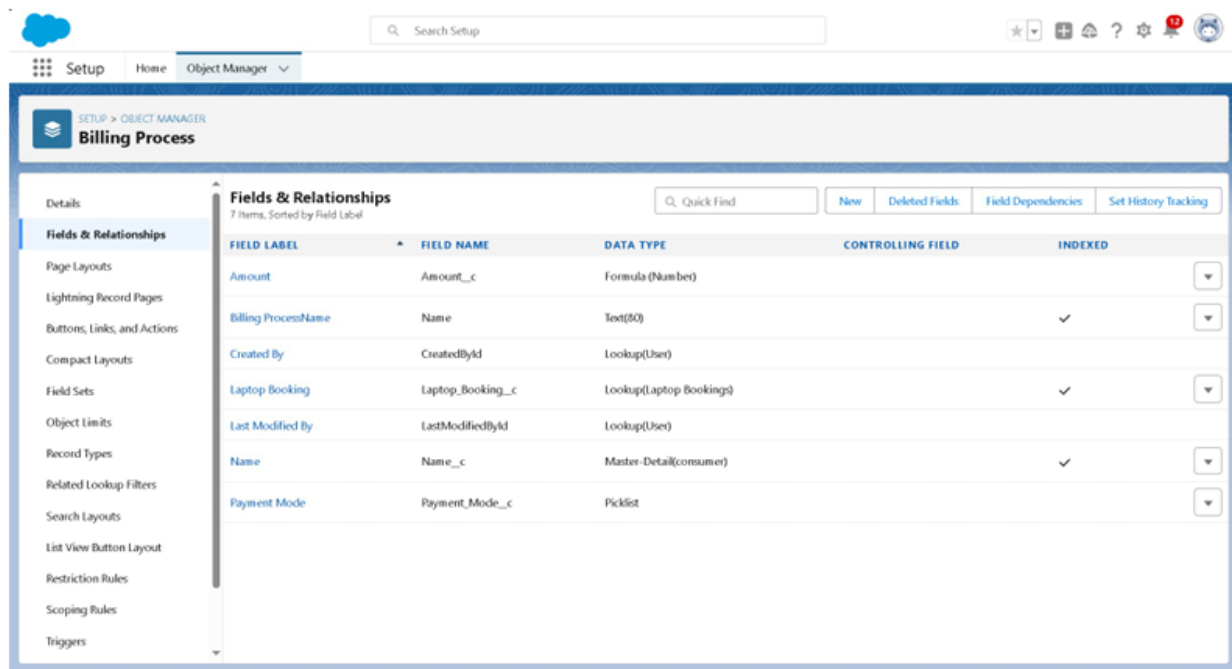
Laptop Booking Fields:



The screenshot shows the Salesforce Object Manager interface for the 'Laptop Bookings' object. The left sidebar contains a navigation menu with options like 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, Scoping Rules, and Triggers. The 'Fields & Relationships' section is selected, showing 11 items sorted by Field Label. The table lists fields with their labels, names, data types, and controlling fields.

Field Label	Field Name	Data Type	Controlling Field	Indexed
Amount	Amount__c	Currency(18, 0)		
core type	core_type__c	Picklist	Laptop names	
Created By	CreatedById	Lookup(User)		
Email	Email__c	Email		
how many months	how_many_months__c	Picklist		
Laptop Bookings	Name	Text(80)		✓
Laptop names	Laptop_type__c	Picklist		
Laptops Available	Laptops_Available__c	Formula (Number)		
Last Modified By	LastModifiedById	Lookup(User)		
name	name__c	Master-Detail(consumer)		✓
Total No Of Laptops	Total_No_Of_Laptops__c	Master-Detail(Total Laptops)		✓

Billing Process Field:



The screenshot shows the Salesforce Object Manager interface for the 'Billing Process' object. The left sidebar contains a navigation menu with options like 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, Scoping Rules, and Triggers. The 'Fields & Relationships' section is selected, showing 7 items sorted by Field Label. The table lists fields with their labels, names, data types, and controlling fields.

Field Label	Field Name	Data Type	Controlling Field	Indexed
Amount	Amount__c	Formula (Number)		
Billing ProcessName	Name	Text(80)		✓
Created By	CreatedById	Lookup(User)		
Laptop Booking	Laptop_Booking__c	Lookup(Laptop Bookings)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Name	Name__c	Master-Detail(consumer)		✓
Payment Mode	Payment_Mode__c	Picklist		

5. Creating a Validation Rule

- **Navigate to Object Manager:** Go to the Setup page and click on Object Manager.
- **Edit Consumer Object:** Select Consumer from the drop-down and click Edit.

- Create a Validation Rule:

- Click on Validation Rules > New.

- Enter the following details:

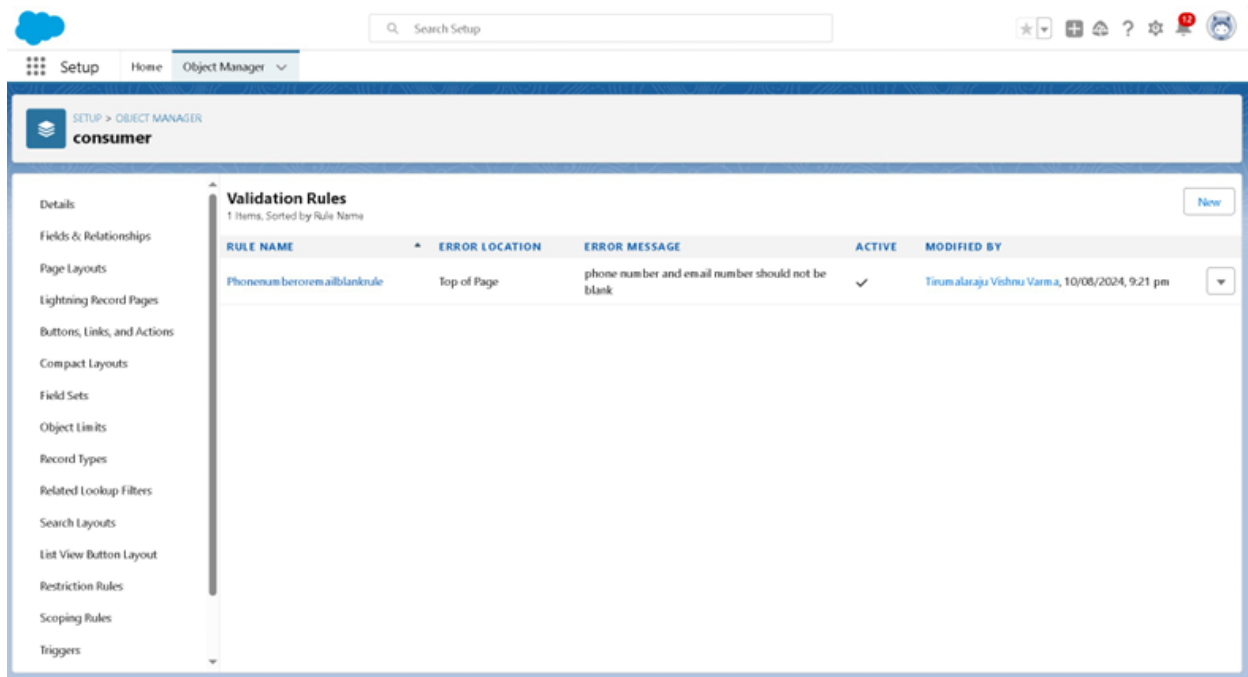
- Rule Name: Phonenumberemailblankrule

- Description: Phone number and email number should not be blank.

- Formula: OR(ISBLANK(phone_number__c) , ISBLANK(email__c))

- Check the syntax and click Save.

Rule:



6. Creating Users

- Navigate to Users: Go to Setup, type Users in the Quick Find box, and select Users.

- Create New User:

- Click New User and fill in the following details:

- First Name: Vicky

- Last Name: Y

- Alias: [Alias Name]

- Email: [Your Personal Email]

- Username: text@text.text

- Nickname: [Nickname]

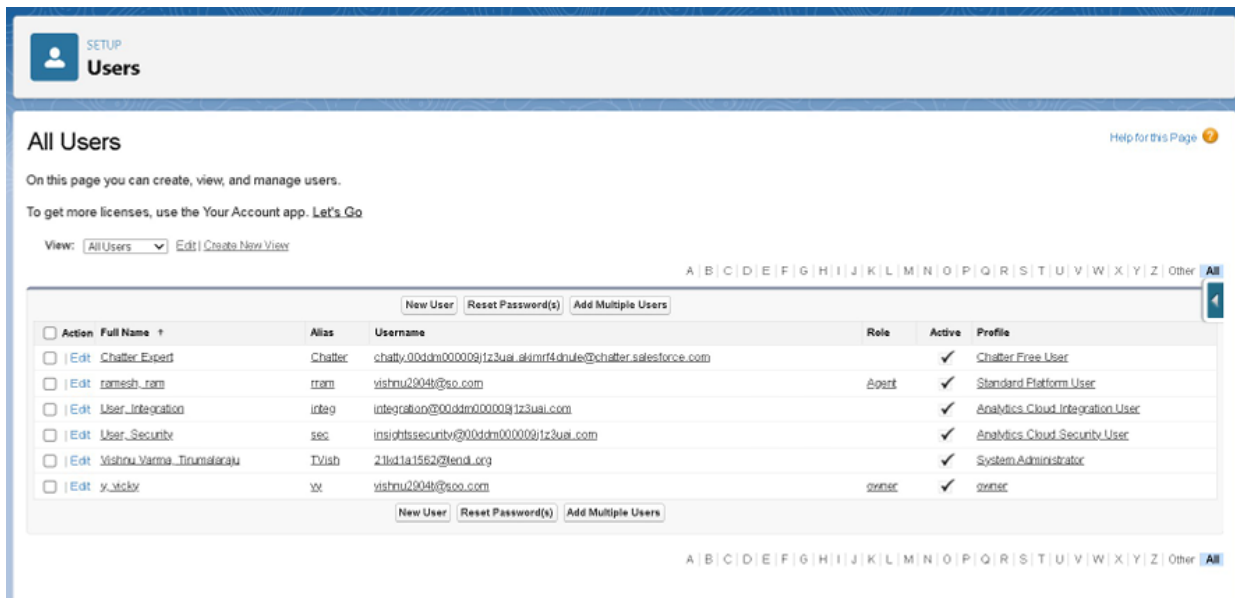
- Role: Owner

- User License: Salesforce

- Profiles: Owner

- Click Save.
- Repeat for Another User:
 - First Name: Ram
 - Last Name: Ram
 - Alias: [Alias Name]
 - Email: [Your Personal Email]
 - Username: text@text.text
 - Nickname: [Nickname]
 - Role: Agent
 - User License: Salesforce Platform
 - Profiles: Standard Platform User
 - Click Save

Users:



The screenshot shows the Salesforce Setup Users page. At the top, there's a 'SETUP Users' header. Below it, the 'All Users' section is visible, with a sub-header 'On this page you can create, view, and manage users.' and a link 'To get more licenses, use the Your Account app. Let's Go'. A 'View:' dropdown is set to 'All Users'. Below this is a table of users with columns: Action, Full Name, Alias, Username, Role, Active, and Profile. The table lists six users: Chatter Expert, ramesh ram, User_Integration, User_Security, Vishnu Varma Tirumalaraju, and y_vicky. Each user has an 'Edit' link and a checkbox. At the bottom of the table, there are buttons for 'New User', 'Reset Password(s)', and 'Add Multiple Users'.

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatty.00dcm0000091z3ua_almrfdhute@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit	ramesh ram	ram	vishnu2004@gmail.com	Agent	✓	Standard Platform User
<input type="checkbox"/> Edit	User_Integration	integ	integration@00dcm0000091z3ua.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User_Security	sec	insightssecurity@00dcm0000091z3ua.com		✓	Analytics Cloud Security User
<input type="checkbox"/> Edit	Vishnu Varma Tirumalaraju	TVish	21kd1a1562@tend.org		✓	System Administrator
<input type="checkbox"/> Edit	y_vicky	yv	vishnu2004@gmail.com	owner	✓	owner

7. Creating a Flow for Laptop Distribution

- Create a Salesflow to automate the laptop distribution process. This flow should handle the assignment of laptops to customers based on availability and booking details.

Flow:



8. Developing Apex Code

- LaptopBookingHandler Class: Write an Apex class to handle the business logic related to laptop bookings.
- LaptopBooking Trigger: Develop a trigger on the Laptop Booking object to automate processes like updating availability or sending notifications.

LaptopBookingHandler Class:

```
public class LaptopBookingHandler {  
    public static void sendEmailNotification (List lapList){  
        for(Laptop_Bookings__c lap:lapList)  
        {  
            Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();  
            email.setToAddresses( new List{lap.Email__c});  
            email.setSubject('Welcome to our company');  
            string body = 'Dear ' +lap.Name +', \n';  
            body += 'Welcome to Laptop Rentals! You have been seen as a valuable customer  
to us.\n Please continue your journey with us, while we try to provide you with good  
quality resources. \n Laptop Amount = ' + lap.Amount__c + ' \n core type =  
' +lap.core_type__c + ' \n Laptop type = '+lap.Laptop_type__c;  
            email.setPlainTextBody(body);  
            Messaging.sendEmail(new List{email});  
        }  
    }  
}
```

Laptop Booking Trigger:

```
trigger LaptopBooking on Laptop_Bookings__c (After insert,after update) {  
    if(trigger.isAfter && ( trigger.isInsert || trigger.isupdate))  
    {  
        LaptopBookingHandler.sendEmailNotification(trigger.new);  
    }  
}
```

9. Generating Reports and Dashboards

- Generate Reports: Create custom reports to track key metrics such as total laptops available, booking status, and customer details.
- Create a Dashboard: Place the generated reports on a Salesforce dashboard for quick and easy visualization.

Reports:

Report: consumer with Laptop Bookings and Total Laptops
consumer with Laptop Bookings and total

Total Records: 12 Total Amount: ₹2,20,900

types of versions	consumer: consumer_name	Laptop Bookings: Laptop Bookings	Total No Of Laptops: Total Laptops	Laptop names	core type	Amount
basic (3)	Prasanth	prasanth	1	Dell	core i3	₹1,000
	Nikhil	nikhil	1	Acer	core i3	₹2,700
	sai	sai	2	Acer	core i3	₹2,700
Subtotal						₹6,400
intermediate (3)	Bunny	bunny	1	.Hp	Core i7 .	₹3,400
	Honey	honey	2	.Hp	Core i5	₹3,400
	Vindhya	Vindhya	1	Mac	bionic chip	₹5,100
Subtotal						₹11,900
high (2)	srinivas	srinu	4	.Hp	Core i5	₹6,800
	Kums	Kums	2	.Hp	Core i5	₹6,800
Subtotal						₹13,600
very high (4)	subu	subuu	1	Dell	Core i5	₹29,000
	jayesh	jayesh	2	Dell	Core i5	₹40,000
	chetan	chetan	1	Acer	Core i5	₹50,000
	Vishnu	Vishnu	2	Acer	Core i5	₹70,000
Subtotal						₹1,89,000
Total (12)						₹2,20,900

Row Counts ☒ Detail Rows ☒ Subtotals ☒ Grand Total ☒

Dashboard:

