

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.

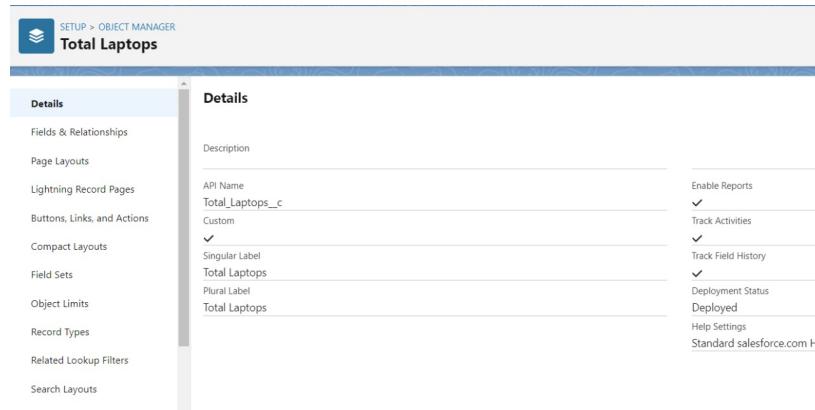
Detailed Setup Instructions:

1. Creating Custom Objects

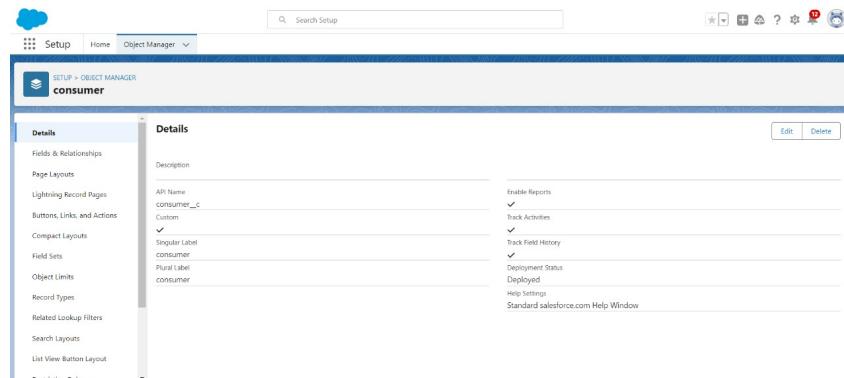
- **Navigate to Setup:** Go to the Setup page and click on Object Manager.
- **Create Custom Object: Total Laptops**
 - Click on **Create > Custom Object**.

- 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

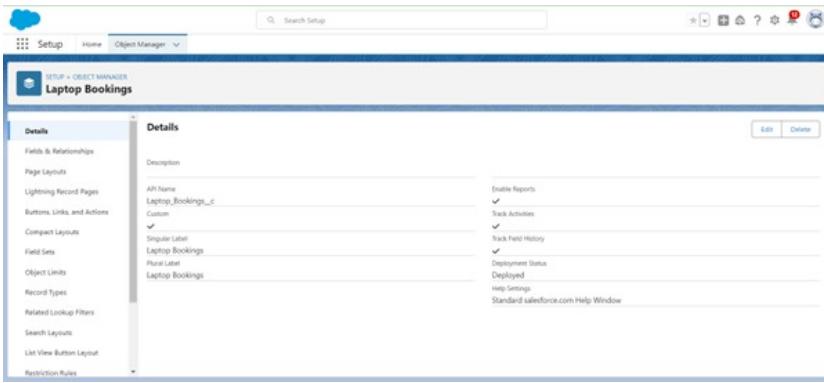
Total Laptops Object:



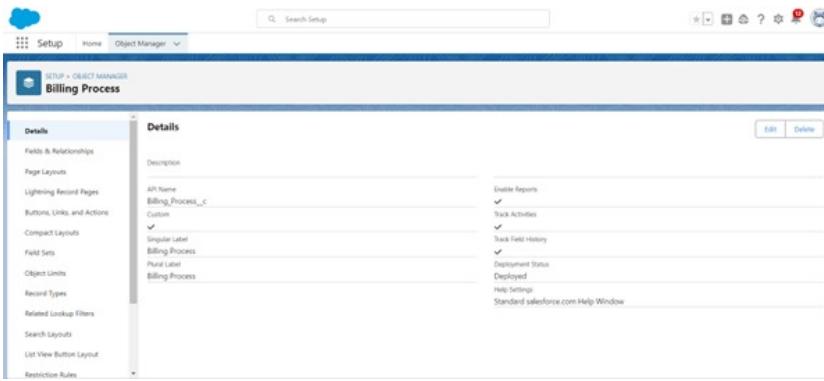
Consumer Object:



Laptop Booking Object:



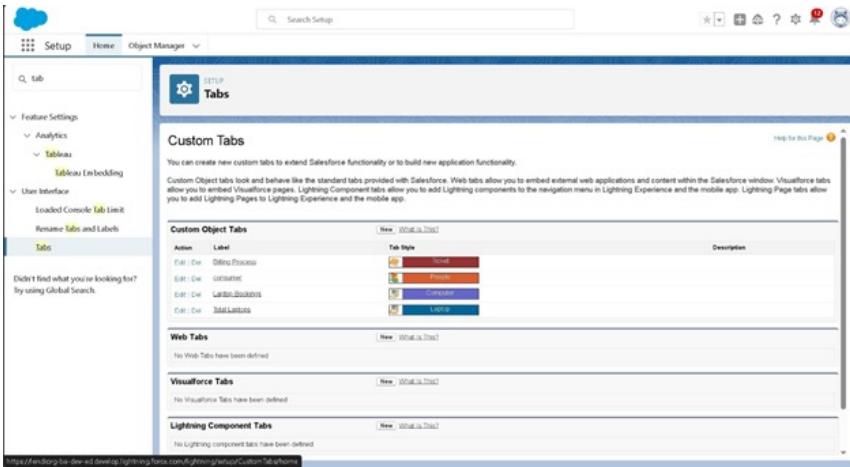
Billing Process Object:



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:



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:

App Navigation:

App User Profiles:

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 Laptops Fields:

The screenshot shows the Salesforce Object Manager interface for the 'Total Laptops' object. The left sidebar lists various setup options like Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, etc. The main content area displays the 'Fields & Relationships' table with the following data:

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(UserGroup)		
Total Laptops	Name	Text(50)		

Consumer Fields:

The screenshot shows the Salesforce Object Manager interface for the 'consumer' object. The left sidebar lists various setup options like Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, etc. The main content area displays the 'Fields & Relationships' table with the following data:

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(80)		
Created By	CreatedById	Lookup(User)		
Email	Email_c	Email		
Last Modified By	LastModifiedById	(lookupUser)		
Owner	OwnerId	Lookup(UserGroup)		
Phone number	Phone_number_c	Phone		

Laptop Booking Fields:

The screenshot shows the 'Fields & Relationships' section for the 'Laptop Bookings' object. It lists 11 fields and their definitions:

Field Label	Field Name	Type	Description
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 Laptop)	

Billing Process Fields:

The screenshot shows the 'Fields & Relationships' section for the 'Billing Process' object. It lists 7 fields and their definitions:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount_c	Formula (Number)		
Billing Process Name	Name	Text(80)		
Created By	CreatedById	Lookup(User)		
Laptop Booking	Laptop_Booking_c	Lookup(Laptop Booking)		
Last Modified By	LastModifiedById	Lookup(User)		
Name	Name_c	Master-Detail(Consumer)		
Payment Mode	Payment_Mode_c	Picklist		

5. Creating a Validation Rule

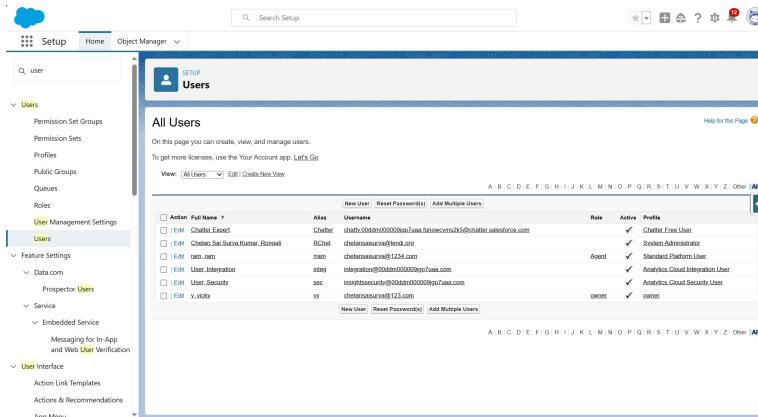
- **Navigate to Object Manager:** Go to the Setup page and click on Object Manager.
- **Edit Consumer Object:** Select Consumer from the drop-down and click Edit.
- **Create a Validation Rule:**
 - Click on Validation Rules > New.
 - Enter the following details:
 - **Rule Name:** Phonenumeroremailblankrule
 - **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:



7. Creating a Flow for Laptop Distribution

- Create a Salesforce Flow 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<Laptop_Bookings__c> lapList){
```

```

for(Laptop_Bookings__c lap:lapList)
{
    Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
    email.setToAddresses( new List<String>{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<Messaging.SingleEmailMessage>{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.

Report:

LAPTOP RENTALS Total Laptops consumer Laptop Bookings Billing Process * consumer with Laptop Boo... X

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

Total Records Total Amount
10 ₹45,700

<input type="checkbox"/> type of versions ↑ ↓	consumer: consumer_name	Total No Of Laptops: Total Laptops	Email	Core Type	Laptop names	how many months	Amount
<input type="checkbox"/> basic (3)	Vyshnavi	3	srivishnavi2204@gmail.com	core i5	Acer	2	₹450
	Vishnu	5	vishnu2907@gmail.com	core i5	Dell	1	₹100
	Vikram	8	vikram2904t@gmail.com	core i7	Hp	4	₹750
Subtotal							₹1,300
<input type="checkbox"/> high (6)	Sirisha	3	sirishachitra123@gmail.com	core i7	Dell	3	₹6,000
	Chetan	5	chetansaisurya@gmail.com	core i3	Dell	2	₹2,000
	Nikhil	3	nikhiladitya@gmail.com	core i3	Acer	2	₹1,800
	Kiran	5	kiran@gmail.com	core i5	Hp	4	₹6,800
	Sai	5	saisurya@gmail.com	bionic chip	Mac	4	₹6,800
	Kumar	8	kumar@gmail.com	core i3	Hp	4	₹9,000
Subtotal							₹32,400
<input type="checkbox"/> very high (1)	Prashanth	3	prashanth@gmail.com	core i7	Hp	2	₹12,000
Subtotal							₹12,000
Total (10)							₹45,700

Row Counts Detail Rows Subtotals Grand Total

Dashboard:

