

A CRM Application for Laptop Rentals

By-

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Project Overview

This CRM application is designed to streamline and enhance the process of renting laptops for short-term use. The primary objective is to leverage Salesforce's Customer Relationship Management capabilities to foster better customer relationships, resulting in an elevated customer experience. By managing customer data, rental transactions, and inventory through a unified platform, this project optimises store operations, reducing manual effort and improving overall efficiency. Additionally, the CRM facilitates seamless communication with customers via automated email notifications, keeping them informed about bookings, billing, and other important updates. The result is a

comprehensive solution that supports efficient rental management, improved customer satisfaction, and operational excellence for the business.

Goals:

- Enhance customer satisfaction through personalized service.
- Streamline and automate rental booking and inventory management.
- Improve team productivity and reduce manual tasks.
- Provide data-driven insights for informed decision-making.
- Ensure secure and efficient data management across users and roles.

Benefits:

- Centralizes customer data for personalized service and relationship management.
- Automates repetitive tasks to boost productivity and efficiency.
- Provides real-time insights with customizable reports and dashboards.
- Integrates easily with other tools, enhancing data flow and reducing silos.
- Offers mobile accessibility, enabling flexibility and responsiveness on the go.

Objectives

- **Streamline Sales Processes:** Use Salesforce solutions to automate and enhance sales workflows, minimising manual tasks and boosting lead management efficiency.
- **Improve Customer Engagement:** Take advantage of Salesforce tools to deliver a tailored experience for customers, enhancing communication and overall satisfaction.
- **Insights from Data:** Utilize Salesforce analytics to collect actionable insights and effectively monitor performance metrics.

Key features and concepts utilised:

This Salesforce CRM project utilize the following concepts and incorporates a variety of features

- **Custom Objects:** Defined unique custom objects such as Consumer, Laptop Bookings, Total Laptops, Billing

Process to handle specific requirements for managing customer data, rental transactions, and inventory. These custom objects allowed precise data handling and organization beyond standard Salesforce objects.

- **Custom Tabs:** Created custom tabs for each custom object to provide easy access to the Consumer, Laptop Bookings, Billing Process and Total Laptops information, enabling the team to navigate and manage data directly from the Salesforce app interface.
- **Creating Lightning Apps:** Built custom Lightning apps for the Laptop Rentals CRM to provide a tailored user interface, streamline workflows, and improve user experience by organizing all necessary tabs, reports, and dashboards under one cohesive application.
- **Validation Rules:** Implemented validation rules to maintain data integrity and enforce business requirements. For example, the customer should specify his/her contact information either the email or phone number.
- **Profile Cloning and Custom Permissions:** Cloned the standard User profile to create Owner and Agent profiles, customising permissions to restrict or allow access to specific objects and data fields based on user roles. This ensured proper access control and safeguarded sensitive information.
- **Role Hierarchy and Role Creation:** Established a role hierarchy by creating an Owner role under the CEO and an Agent role under the Owner.
- **User Creation:** Created two user accounts: Owner and Agent. The Owner has elevated permissions for full control, while the Agent can handle customer interactions and manage bookings within the limits set by their profile.
- **Flows for Laptop Models:** Created a Record Triggered for Laptop Models and for automating the model selection, processor type selection, selecting the number of months to rent the laptop and the charges based on the chosen inputs.
- **Apex Programming:** Created Apex classes and triggers to carry out complex business logics and trigger the email notifications after booking a laptop for rent.
- **Reports and Report Sharing:** Created a custom report to provide insights into rental activity, and filtered the data according to the types of versions shared this report to the Owner.
- **Dashboard Folder and Dashboard Creation:** Created a Dashboard to represent the created report in the form of a donut chart that enables to analyse the rental amounts for each version.

Screenshots of the Project

1. Creating A Custom Tab

Setup Home Object Manager

Search Setup

User Interface

Rename Tabs and Labels

Tabs

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

Custom Tabs

Custom Object Tabs

Action	Label	Tab Style	Description
Edit Del	Billing Process	Credit card	
Edit Del	consumer	People	
Edit Del	Laptop Bookings	Form	
Edit Del	Total Laptops	Laptop	

Web Tabs

No Web Tabs have been defined

Visualforce Tabs

No Visualforce Tabs have been defined

<https://myarcollegeofengineering15-dev-ed.lightning.force.com/lightning/setup/CustomTabs/home>

2. Creating A Lightning App

Lightning App Builder App Settings Pages LAPTOP RENTALS ? Help

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

App Details & Branding

Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.

App Details

* App Name

* Developer Name

Description

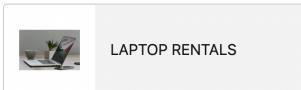
App Branding

Image

Primary Color Hex Value

Org Theme Options Use the app's image and color instead of the org's custom theme

App Launcher Preview



3. Creating The Field In Consumer Object

Setup Home Object Manager

SETUP > OBJECT MANAGER consumer

Details		Fields & Relationships				
		8 Items, Sorted by Field Label				
		FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Fields & Relationships	Page Layouts	Address	Address__c	Text Area(255)		
	Lightning Record Pages	consumer Status	consumer_Status__c	Picklist		
	Buttons, Links, and Actions					
	Compact Layouts	consumer_name	Name	Text(80)		✓
	Field Sets	Created By	CreatedById	Lookup(User)		
	Object Limits	Email	Email__c	Email		
	Record Types	Last Modified By	LastModifiedById	Lookup(User)		
	Related Lookup Filters	Owner	OwnerId	Lookup(User,Group)		✓
	Search Layouts	Phone number	Phone_number__c	Phone		
	List View Button Layout					
Restriction Rules						

4. Creating The Field In Laptops Bookings Object

Setup Home Object Manager

SETUP > OBJECT MANAGER Laptop Bookings

Details		Fields & Relationships				
		12 Items, Sorted by Field Label				
		FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Fields & Relationships	Page Layouts	Amount	Amount__c	Currency(18, 0)		
	Lightning Record Pages	Consumer	Consumer__c	Master-Detail(consumer)		✓
	Buttons, Links, and Actions	Core Type	Core_Type__c	Picklist	Laptop Names	
	Compact Layouts	Created By	CreatedById	Lookup(User)		
	Field Sets	Email	Email__c	Email		
	Object Limits	how many months	how_many_months__c	Picklist		
	Record Types	Laptop Bookings	Name	Text(80)		✓
	Related Lookup Filters	Laptop Names	Laptop_Names__c	Picklist		
	Search Layouts	Laptops Available	Laptops_Available__c	Formula (Number)		
	List View Button Layout					
Restriction Rules						

5. Creation Of Fields & Relationship For Billing Process Object



SETUP > OBJECT MANAGER

Billing Process

Details		Fields & Relationships				
		7 Items, Sorted by Field Label				
		FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Page Layouts	Amount	Amount__c	Formula (Currency)			
Lightning Record Pages	Billing ProcessName	Name	Text(80)		✓	
Buttons, Links, and Actions	Created By	CreatedById	Lookup(User)			
Compact Layouts	Laptop Booking	Laptop_Booking__c	Lookup(Laptop Bookings)		✓	
Field Sets	Last Modified By	LastModifiedById	Lookup(User)			
Object Limits	Name	Name__c	Master-Detail(consumer)		✓	
Record Types	Payment Mode	Payment_Mode__c	Picklist			
Related Lookup Filters						
Search Layouts						
List View Button Layout						
Restriction Rules						

6. Creating The Field In Total Laptops Object



SETUP > OBJECT MANAGER

Total Laptops

Details		Fields & Relationships				
		6 Items, Sorted by Field Label				
		FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Page Layouts	Created By	CreatedById	Lookup(User)			
Lightning Record Pages	Laptops Available	Laptops_Available__c	Formula (Number)			
Buttons, Links, and Actions	Laptops delivered	Laptops_delivered__c	Roll-Up Summary (COUNT Laptop Bookings)			
Compact Layouts	Last Modified By	LastModifiedById	Lookup(User)			
Field Sets	Owner	OwnerId	Lookup(User,Group)		✓	
Object Limits	Total Laptops	Name	Text(80)		✓	
Record Types						
Related Lookup Filters						
Search Layouts						
List View Button Layout						
Restriction Rules						

<https://myorgcollegeofengineering15-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01dM000004OKMf/FieldsAndRelationships/00NdM00000FCiyp/view>

7. Creating The Validation Rule For Phone Number Field In Consumer Object

The screenshot shows the Salesforce Setup interface with the following details:

- Setup** tab selected.
- Object Manager** dropdown set to **consumer**.
- Validation Rules** section:
 - 1 Items, Sorted by Rule Name
 - Rule Name**: Phonenumbereoremailblankrule
 - Error Location**: Top of Page
 - Error Message**: Please fill the phone number and email id
 - Active**: checked
 - Modified By**: Prasanth Kumar, 26/02/2025, 5:57 pm
- New** button in the top right corner of the Validation Rules table.
- Left sidebar** (under **SETUP > OBJECT MANAGER**):
 - 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** (selected)

8. Owner Profile

The screenshot shows the Salesforce Setup interface with the following details:

- Setup** tab selected.
- Object Manager** dropdown set to **Profiles**.
- Owner** profile details:
 - Name**: owner
 - User License**: Salesforce
 - Description**: (empty)
 - Created By**: Prasanth Kumar, 26/02/2025, 5:59 pm
 - Modified By**: Prasanth Kumar, 26/02/2025, 6:02 pm
 - Custom Profile**: checked
- Page Layouts** section:

Standard Object Layouts	Global	Global Layout [View Assignment]	Invoice	Invoice Layout [View Assignment]
Email Application	Not Assigned	[View Assignment]	Invoice Line	Invoice Line Layout [View Assignment]
Home Page Layout	DE Default	[View Assignment]	Lead	Lead Layout [View Assignment]
Account	Account Layout [View Assignment]		Legal Entity	Legal Entity Layout [View Assignment]
Alternative Payment Method	Alternative Payment Method Layout [View Assignment]		Location	Location Layout [View Assignment]

9. Agent Profile

Search Setup

profiles

Users

Profiles

Profile Agent

Help for this Page ?

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

Profile Detail

Name	Agent	User License	Salesforce Platform	Custom Profile
Description				✓
Created By	Prasanth Kumar, 26/02/2025, 6:03 pm			Modified By Prasanth Kumar, 26/02/2025, 6:03 pm

Page Layouts

Standard Object Layouts	Global	Global Layout [View Assignment]	Fulfillment Order Item Tax	Fulfillment Order Item Tax Layout [View Assignment]
Email Application	Not Assigned	[View Assignment]	Fulfillment Order Product	Fulfillment Order Product Layout [View Assignment]
Home Page Layout	Home Page Default	[View Assignment]	Idea	Varies by Record Type [View Assignment]
Account	Account Layout	[View Assignment]	Individual	Individual Layout [View Assignment]
Alternative Payment Method	Alternative Payment Method Layout	[View Assignment]	Invoice	Invoice Layout [View Assignment]

10. Creating Owner Role

Search Setup

roles

Users

Roles

Feature Settings

- Sales
 - Contact Roles on Contracts
 - Contact Roles on Opportunities
- Service
 - Case Teams
 - Case Team Roles
 - Contact Roles on Cases

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

Creating the Role Hierarchy

Help for this Page ?

Your Organization's Role Hierarchy

Collapse All Expand All Show in tree view

```

graph TD
    MVGR[MVGR College of Engineering] --> CEO[CEO]
    CEO --> CFO[CFO]
    CEO --> COO[COO]
    CEO --> owner[owner]
    CEO --> Agent[Agent]
    MVGR --> SVP_SCS[SVP, Customer Service & Support]
    SVP_SCS --> CSIntl[Customer Support, International]
    SVP_SCS --> CSNA[Customer Support, North America]
    SVP_SCS --> IRS[Installation & Repair Services]
    SVP_SCS --> SHR[SVP, Human Resources]
    CSIntl --> AddRole1[Add Role]
    CSNA --> AddRole2[Add Role]
    IRS --> AddRole3[Add Role]
    SHR --> AddRole4[Add Role]
  
```

11. Create User

Setup Home Object Manager

Search Setup

Help for this Page ?

All Users

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

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

View: All Users | Edit | Create New View

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/>	Edit Chatter Expert	Chatter	chatty.00ddm00000kgtewuaj.b8bwlyis2rgfr@chatter.salesforce.com		<input checked="" type="checkbox"/>	Chatter Free User
<input type="checkbox"/>	Edit Kumar_Prasanth	PKuma	prasanth562@myvrce.com		<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/>	Edit ram_ram	rram	vroy4224@2956@gmail.com	Agent	<input checked="" type="checkbox"/>	Agent
<input type="checkbox"/>	Edit User_Integration	integ	integration@00ddm00000kgtewuaj.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User
<input type="checkbox"/>	Edit User_Security	sec	insightssecurity@00ddm00000kgtewuaj.com		<input checked="" type="checkbox"/>	Analytics Cloud Security User
<input type="checkbox"/>	Edit v_vicky	vroy	vroy4224@5629@gmail.com	owner	<input checked="" type="checkbox"/>	owner

New User | Reset Password(s) | Add Multiple Users

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other | All |

https://myvrceengineering15-dev-ed.develop.lightning.force.com/lightning/setup/Users/home

12. Creating A Flow On Dell, Acer, HP, Mac Laptop

Flow Builder Laptop distributions - V1

Last saved on 26/2/2025, 10:31 pm Active Run Debug View Tests Save As New Version Save Deactivate

Toolbox

Elements Manager

- Interaction (3)
 - Action
 - Subflow
 - Custom Error
- Logic (6)
 - Assignment
 - Decision
 - Loop
 - Transform
 - Collection Sort
 - Collection Filter
- Data (4)
 - Create Records
 - Update Records
 - Get Records
 - Delete Records

Get more on the AppExchange

13. Apex Trigger And Handler Class

Setup Home Object Manager

Search Setup

apex

- Email
 - Apex Exception Email
- Custom Code
 - Apex Classes**
 - Apex Settings
 - Apex Test Execution
 - Apex Test History
 - Apex Triggers
- Environments
 - Jobs
 - Apex Flex Queue
 - Apex Jobs

Help for this Page

Apex Classes

LaptopBookingHandler

Apex Class Detail

Name	LaptopBookingHandler	Status	Active
Namespace Prefix		Code Coverage	0% (0/18)
Created By	Prasanth Kumar , 26/02/2025, 10:35 pm	Last Modified By	Prasanth Kumar , 26/02/2025, 10:39 pm

Class Body Class Summary Version Settings Trace Flags

```

1 public class LaptopBookingHandler {
2     public static void sendEmailNotification(List<Laptop_Bookings__c> lapList) {
3         List<Messaging.SingleEmailMessage> emails = new List<Messaging.SingleEmailMessage>();
4
5         for (Laptop_Bookings__c lap : lapList) {
6             if (lap.Email__c != null) { // Ensure email exists
7                 Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
8                 email.setToRecipients(new String[]{lap.Email__c});
9                 email.setSubject('Welcome to our Laptop Rental Service');
10
11                 String body = 'Dear Customer,\n';
12                 body += 'Welcome to Laptop Rentals! We value your support.\n';
13                 body += 'Your Booking Details:\n';
14                 body += 'Booking Reference Number: ' + lap.Id + '\n';
15                 body += 'Core Model: ' + lap.Core_Type__c + '\n';
16                 body += 'Laptop Model: ' + lap.Laptop_Name__c + '\n';
17                 body += 'Thank you for choosing us!';
18
19                 email.setPlainTextBody(body);
20                 emails.add(email);
21             }
22         }
23
24         // Send all emails in one request
25         if (!emails.isEmpty()) {
26             Messaging.sendEmail(emails);
27         }
28     }
29 }
```

Setup Home Object Manager

Search Setup

apex

- Email
 - Apex Exception Email
- Custom Code
 - Apex Classes**
 - Apex Settings
 - Apex Test Execution
 - Apex Test History
 - Apex Triggers**
- Environments
 - Jobs
 - Apex Flex Queue
 - Apex Jobs

Help for this Page

Apex Triggers

LaptopBooking

Apex Trigger Detail

Name	LaptopBooking	sObject Type	Laptop Bookings
Code Coverage	0% (0/2)	Status	Active
Created By	Prasanth Kumar , 26/02/2025, 10:34 pm	Last Modified By	Prasanth Kumar , 26/02/2025, 11:45 pm
Namespace Prefix			

Apex Trigger Version Settings Trace Flags

```

1 trigger LaptopBooking on Laptop_Bookings__c (After insert, After update) {
2     if (Trigger.isAfter && !Trigger.isInsert || Trigger.isUpdate) {
3         LaptopBookingHandler.sendEmailNotification(Trigger.new);
4     }
5 }
```

14. Create Report

LAPTOP RENTALS Total Laptops consumer Laptop Bookings Billing Process * data analytics of laptops * Laptop Analytics

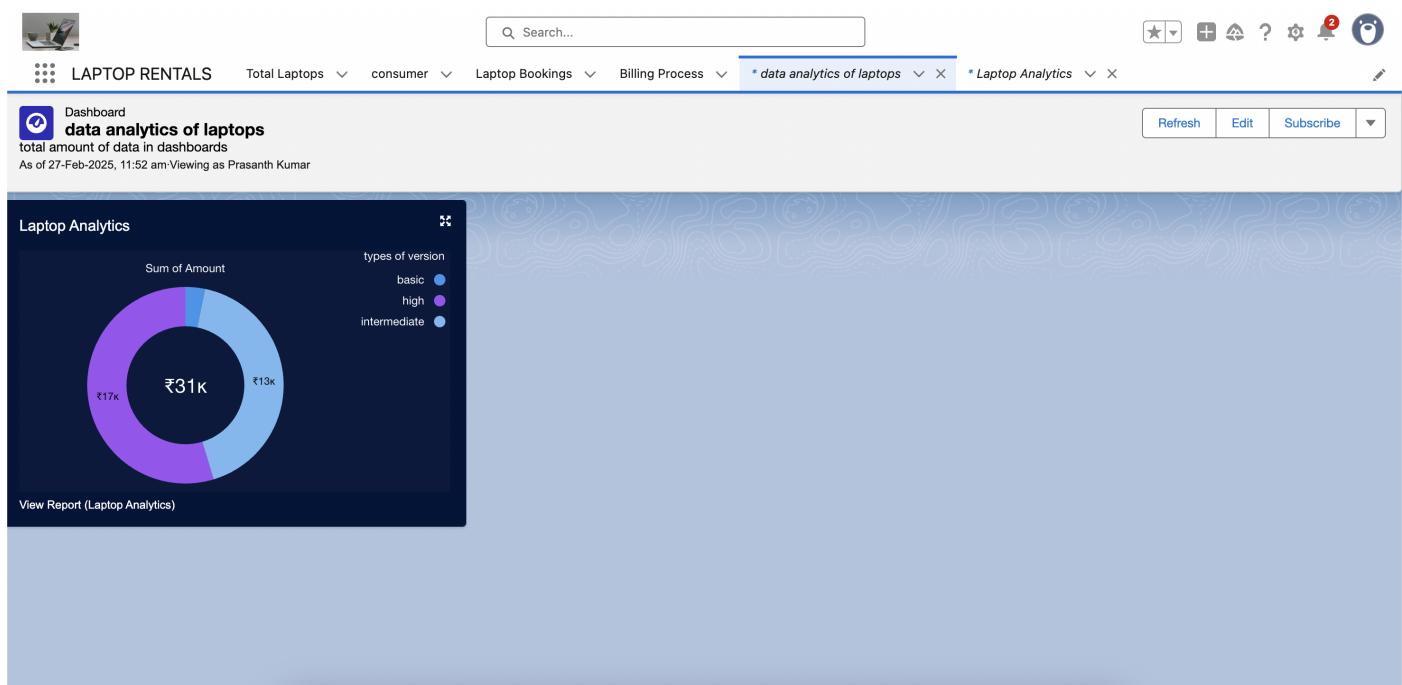
Report: consumer with Laptop Bookings and Total Laptops
Laptop Analytics

Total Records: 7 Total Amount: ₹31,100 Total Laptops Available: 345

	consumer: consumer_name	Laptop Bookings: Laptop Bookings	Total Laptops: Total Laptops	Amount	Laptops Available	Total No Of Laptops
<input type="checkbox"/> basic (1)	Priya Sharma	FastRent Laptops	30	₹1,000	50	50
Subtotal				₹1,000	50	
<input type="checkbox"/> intermediate (4)	Alex Brown	Elite Laptop Rentals	2	₹4,000	49	10
	Jane Smith	Prime Laptops	2	₹3,500	49	10
	Chris White	SmartTech Laptops	1	₹3,600	49	30
	John Doe	UrbanTech	1	₹2,000	49	30
Subtotal				₹13,100	196	
<input type="checkbox"/> high (2)	Alex Brown	Tech Haven Laptop Rentals	10	₹8,500	49	30
	Jane Smith	Prime Laptops	1	₹8,500	50	50
Subtotal				₹17,000	99	
Total (7)				₹31,100	345	

Row Counts Detail Rows Subtotals Grand Total

15. Create Dashboard



Conclusion

This CRM application will be a comprehensive solution to effectively manage laptop rental operations, improve customer satisfaction, streamlining internal processes, and drive revenue growth. By leveraging Salesforce's robust capabilities, the application will provide a flexible, customizable, and scalable platform for managing the end-to-end lifecycle of laptop rentals.