

# 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 optimizes 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, minimizing 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.

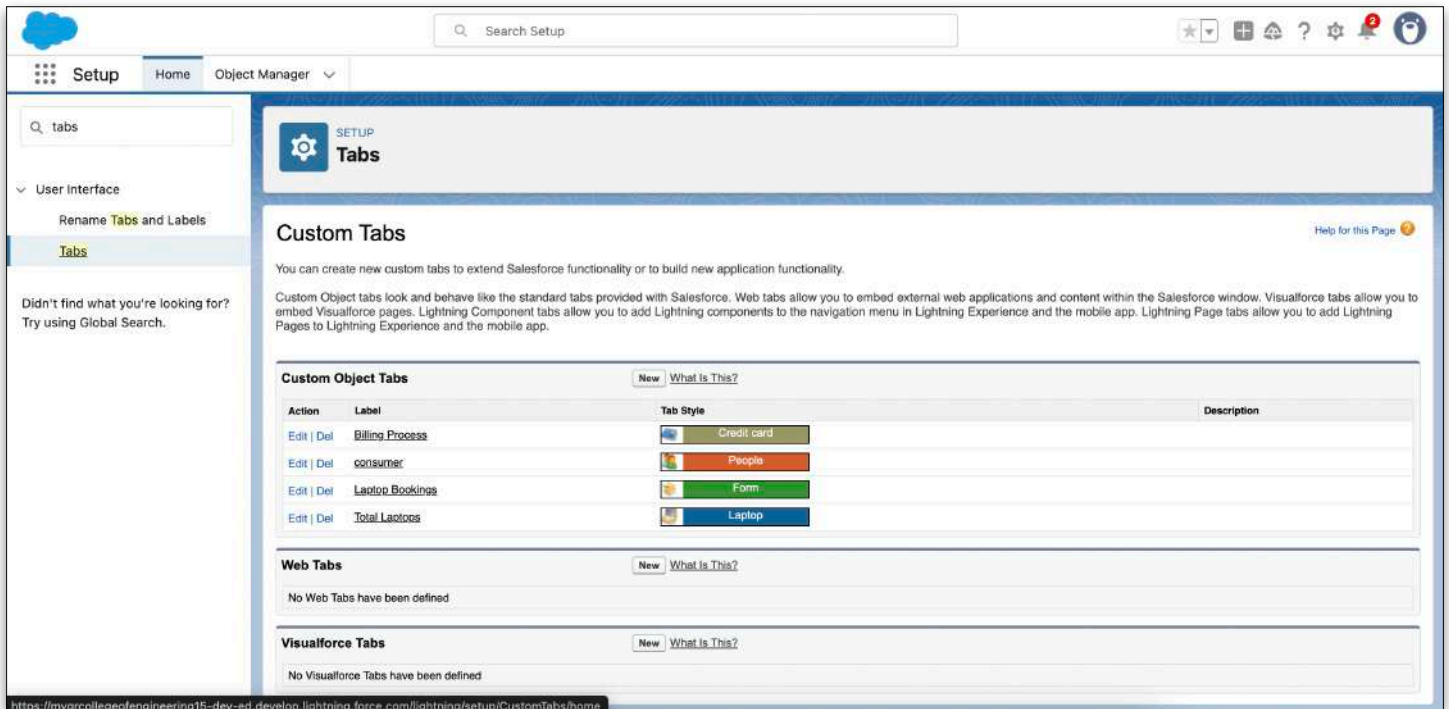
## Key features and concepts utilized

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

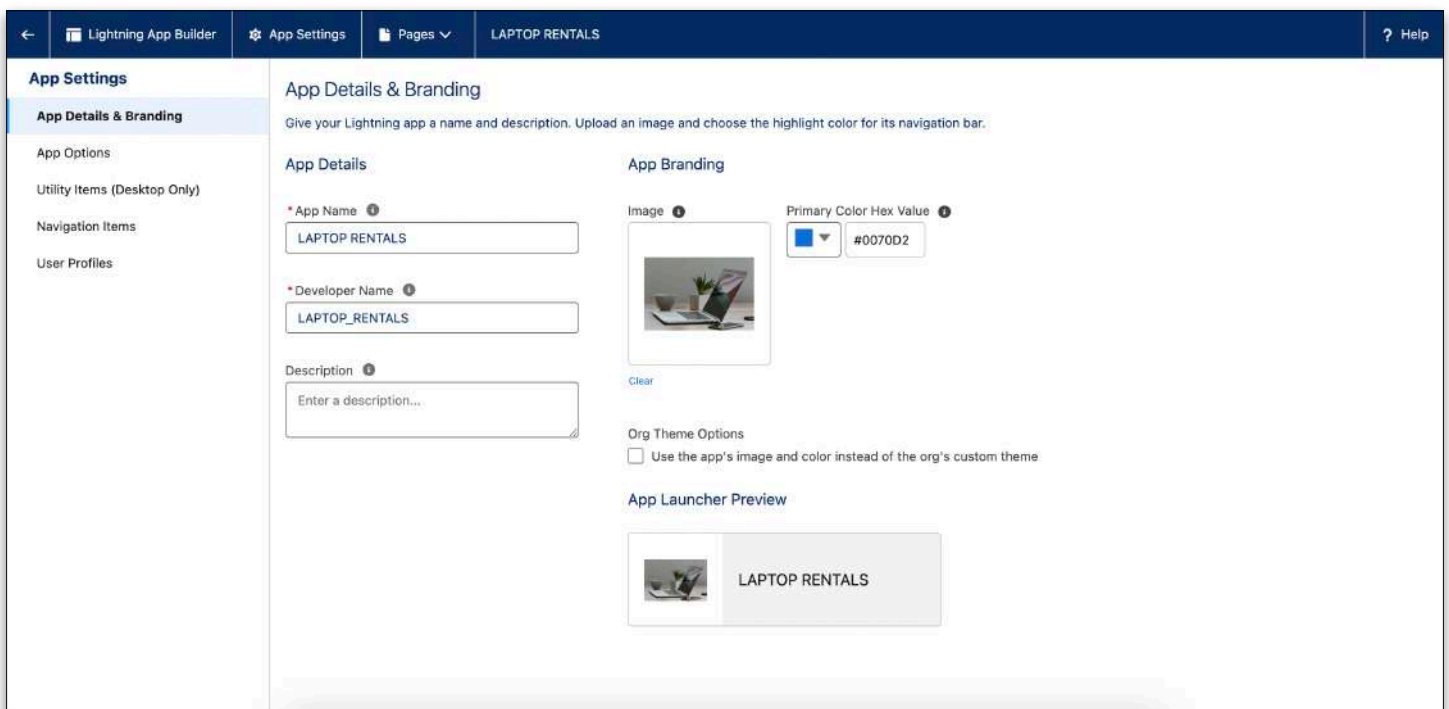
- **Custom Objects:** Defined unique custom objects such as Consumer, Laptop Bookings, Total Laptops, Billing Process to handle specific requirements for managing customer data, rental transactions, and inventory. These custom objects allowed precise data handling and organization beyond standard Salesforce 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, customizing 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



## 2. Creating A Lightning App



### 3. Creating The Field In Consumer Object

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
Page Layouts	Address	Address__c	Text Area(255)		
Lightning Record Pages	consumer Status	consumer_Status__c	Picklist		
Buttons, Links, and Actions	consumer_name	Name	Text(80)		✓
Compact Layouts	Created By	CreatedById	Lookup(User)		
Field Sets	Email	Email__c	Email		
Object Limits	Last Modified By	LastModifiedById	Lookup(User)		
Record Types	Owner	OwnerId	Lookup(User,Group)		✓
Related Lookup Filters	Phone number	Phone_number__c	Phone		

### 4. Creating The Field In Laptops Bookings Object

Setup

Home

Object Manager

Search Setup

Setup > OBJECT MANAGER

Laptop Bookings

Details

Fields & Relationships

12 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

	FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
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)		

## 5. Creation Of Fields & Relationship For Billing Process Object

The screenshot shows the Salesforce Object Manager interface for the 'Billing Process' object. The 'Fields & Relationships' tab is selected, displaying a list of 7 fields. The interface includes a search bar, navigation tabs (New, Deleted Fields, Field Dependencies, Set History Tracking), and a sidebar with various setup options.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount__c	Formula (Currency)		
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		

## 6. Creating The Field In Total Laptops Object

The screenshot shows the Salesforce Object Manager interface for the 'Total Laptops' object. The 'Fields & Relationships' tab is selected, displaying a list of 6 fields. The interface includes a search bar, navigation tabs (New, Deleted Fields, Field Dependencies, Set History Tracking), and a sidebar with various setup options.

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)		✓

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

The screenshot shows the Salesforce Setup interface, specifically the Object Manager for the 'consumer' 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, and Restriction Rules. The main content area is titled 'Validation Rules' and shows 1 item, sorted by Rule Name. A table lists the validation rule 'Phonenumberoremailblankrule' with an error location of 'Top of Page' and an error message of 'Please fill the phone number and email id'. The rule is active and was modified by Prasanth Kumar on 26/02/2025 at 5:57 pm.

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Phonenumberoremailblankrule	Top of Page	Please fill the phone number and email id	✓	Prasanth Kumar, 26/02/2025, 5:57 pm

## 8. Owner Profile

The screenshot shows the Salesforce Setup interface, specifically the Profiles section. The left sidebar contains a navigation menu with options like Profiles, Users, and a search bar. The main content area is titled 'Profiles' and shows the 'owner' profile. The profile details include the name 'owner', user license 'Salesforce', and a custom profile checkbox that is checked. The profile was created by Prasanth Kumar on 26/02/2025 at 5:59 pm and modified by Prasanth Kumar on 26/02/2025 at 6:02 pm. The page layouts section shows the standard object layouts for the profile, including Global, Invoice, Invoice Line, Lead, Legal Entity, and Location layouts.

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



## 9. Agent Profile

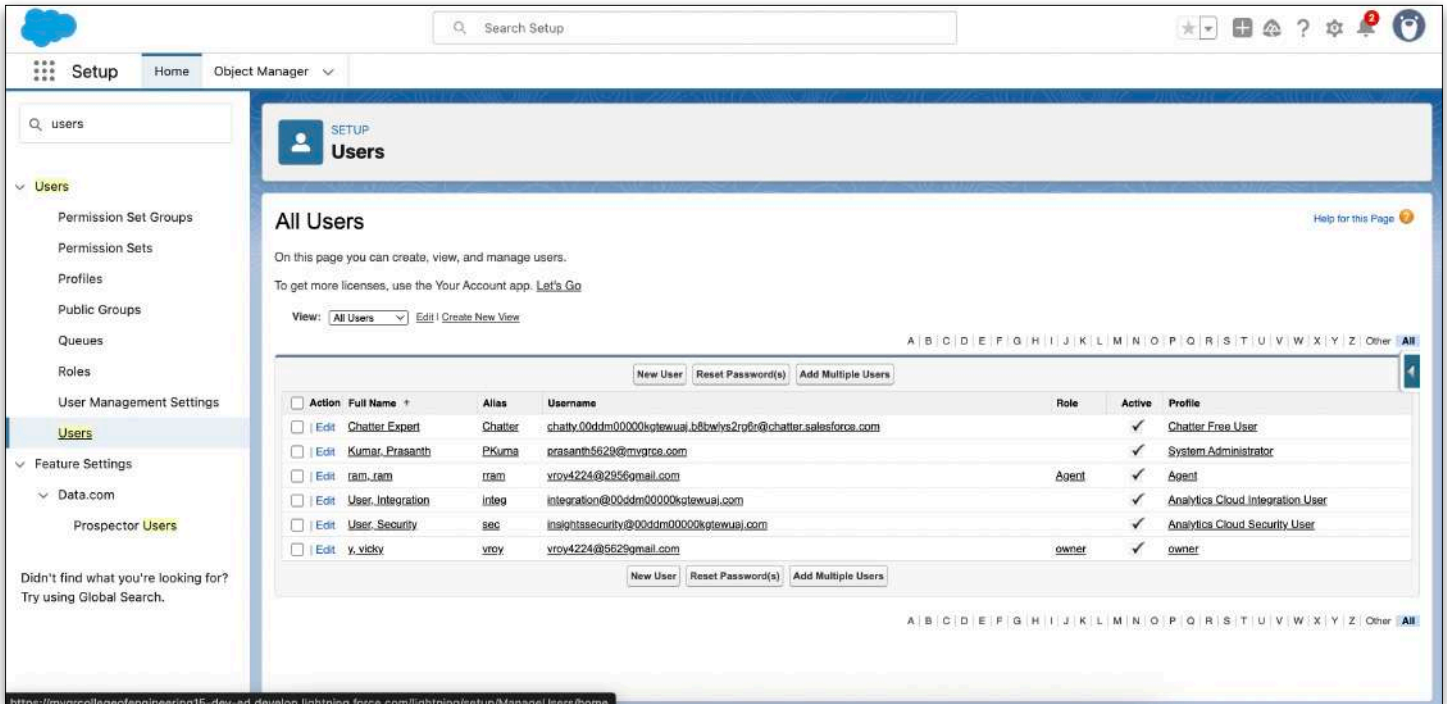
The screenshot shows the Salesforce Setup interface. On the left sidebar, the navigation menu includes "Setup", "Home", and "Object Manager". Below these are search filters for "profiles" and "Users". The main content area is titled "Profiles" under the "SETUP" header. It displays details for the "Agent" profile, including its name, user license ("Salesforce Platform"), and a list of permissions such as "Login IP Ranges" and "Enabled Apex Class Access". A section for "Page Layouts" lists various layouts like "Global", "Email Application", and "Home Page Layout" with links to view their assignments.

## 10. Creating Owner Role

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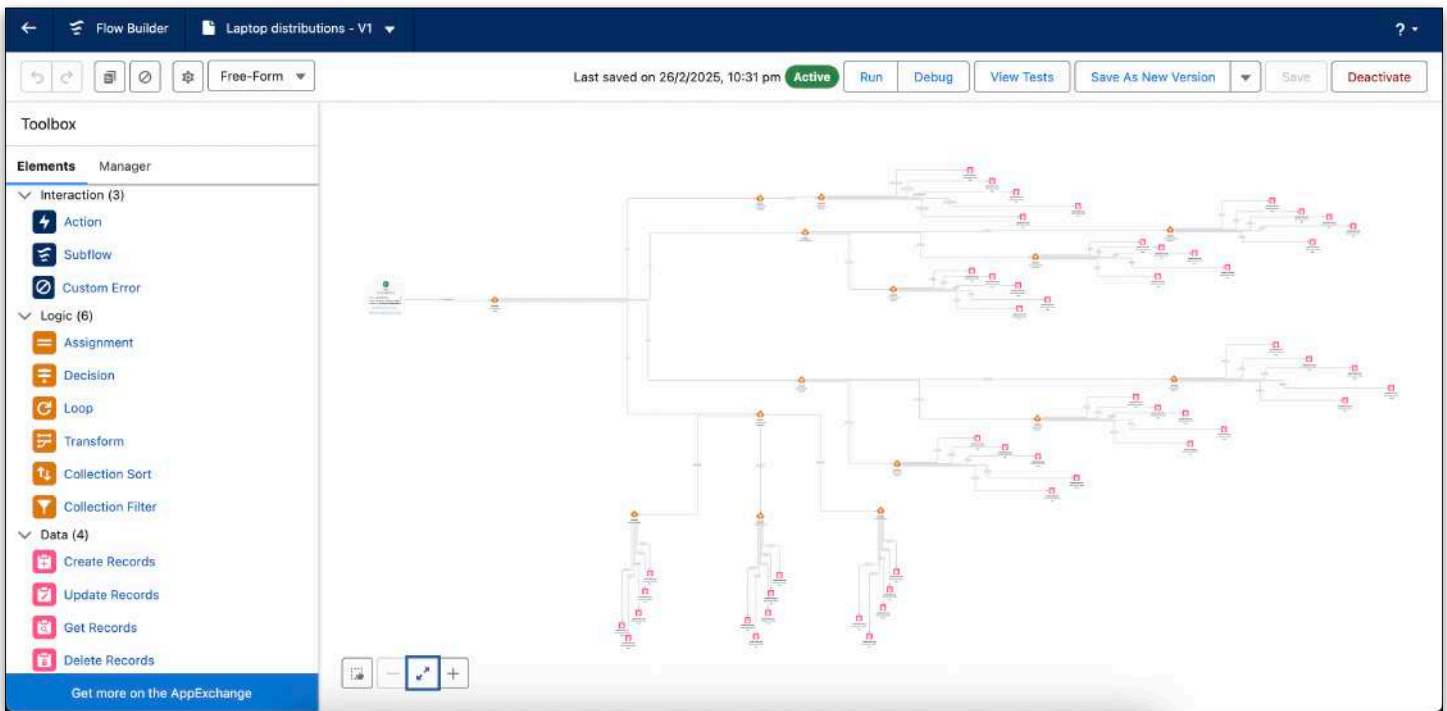
## 11. Create User



The screenshot shows the Salesforce Setup interface for the 'Users' section. The left sidebar contains navigation links for Setup, Home, and Object Manager. The main content area is titled 'All Users' and includes a search bar, a 'View: All Users' dropdown, and a 'Create New User' button. Below this is a table of users with columns for Action, Full Name, Alias, Username, Role, Active, and Profile. The table lists several users, including Chatter Expert, Kumar Prasanth, ram\_ram, User Integration, User Security, y\_vicky, and y\_vicky. The bottom of the page shows a URL bar with the address 'https://sourcecollapsenamespace15-dev-ed.davalon.lightbulb.force.com/lightbulb/Setup/ManageUsers.htm'.

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatter00ddm00000kglewua1_b8bwys2rpb6@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit	Kumar Prasanth	PKuma	prasanth5629@mvgrsa.com		✓	System Administrator
<input type="checkbox"/> Edit	ram_ram	ram	yroy4224@25569mail.com	Agent	✓	Agent
<input type="checkbox"/> Edit	User Integration	integ	integration@00ddm00000kglewua1.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User Security	sec	inightssecurity@00ddm00000kglewua1.com		✓	Analytics Cloud Security User
<input type="checkbox"/> Edit	y_vicky	yroy	yroy4224@5629mail.com	owner	✓	owner

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



The screenshot shows the Salesforce Flow Builder interface for a flow named 'Laptop distributions - V1'. The left sidebar contains a 'Toolbox' with categories: Interaction (3), Logic (6), and Data (4). The main canvas displays a complex flow diagram with multiple steps and decision points. The flow starts with a 'Start' node, followed by a 'Decision' node, and then branches into several parallel paths. Each path contains a series of 'Action' nodes, including 'Create Records', 'Update Records', 'Get Records', and 'Delete Records'. The flow ends with a 'End' node. The bottom of the page shows a URL bar with the address 'https://sourcecollapsenamespace15-dev-ed.davalon.lightbulb.force.com/lightbulb/Setup/ManageUsers.htm'.

## 13. Apex Trigger And Handler Class

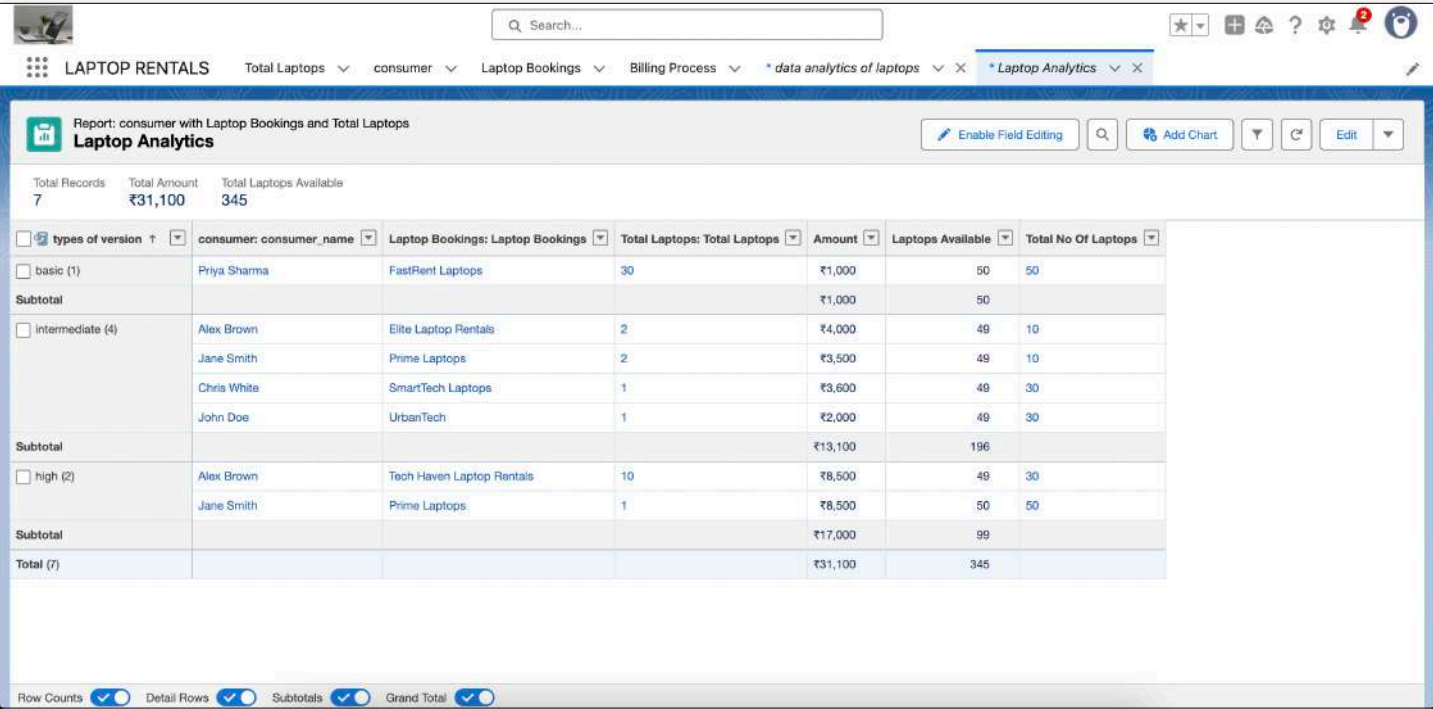
The screenshot displays the Salesforce Setup interface. On the left sidebar, the navigation menu is expanded to 'Apex Triggers'. The main content area is titled 'Apex Classes' and shows the details for the 'LaptopBookingHandler' class. The class is created by 'Prasanth Kumar' on '26/02/2025, 10:35 pm'. The status is 'Active' with '0% (0/18)' code coverage. The 'Class Body' tab is selected, showing the following Apex code:

```
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.setToAddresses(new List<String>{lap.Email__c});
9                 email.setSubject('Welcome to our Laptop Rental Service');
10
11                 String body = 'Dear Customer,Hi!';
12                 body += 'Welcome to Laptop Rental! We value your support,Hi!';
13                 body += 'Your Booking Details,Hi!';
14                 body += 'Laptop Amount: ' + lap.Amount__c + ' $';
15                 body += 'Core Type: ' + lap.Core_Type__c + ' $';
16                 body += 'Laptop Model: ' + lap.Laptop_Model__c + ' $';
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 }
```

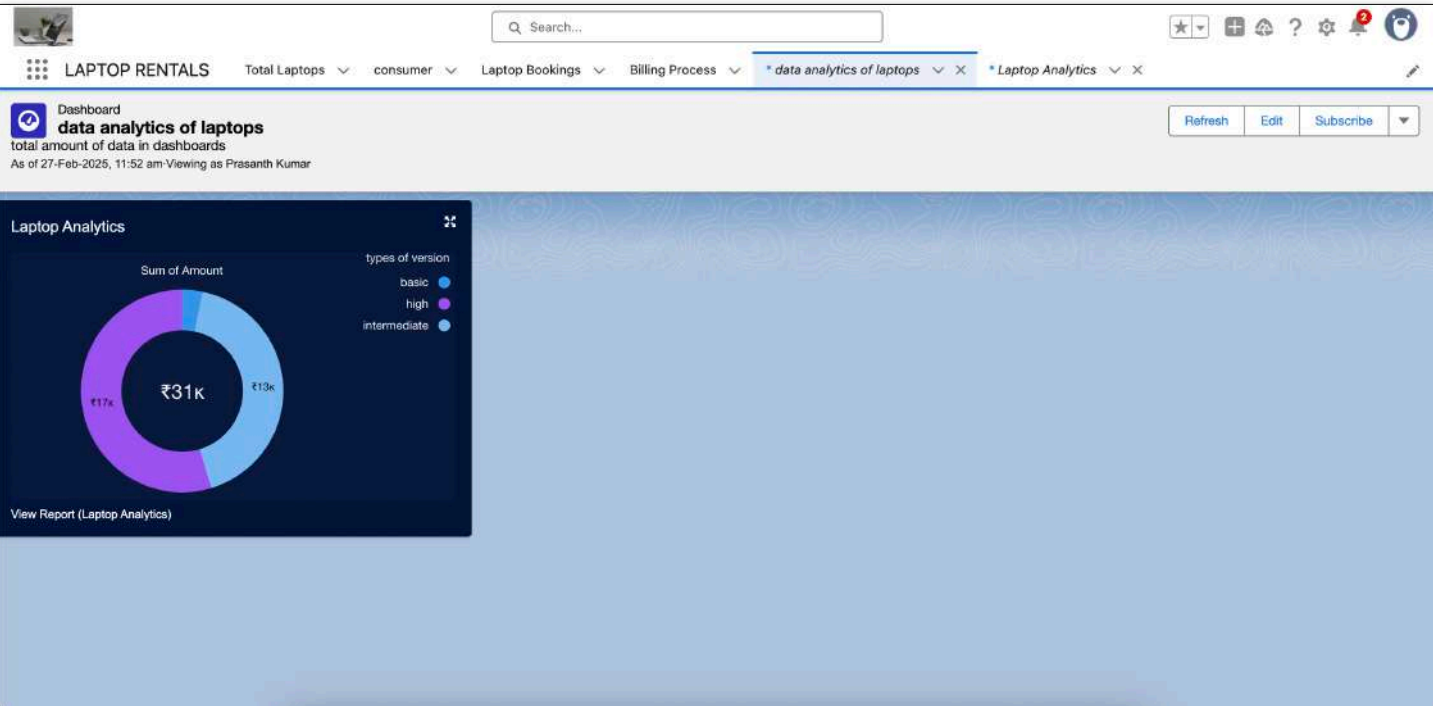
The screenshot displays the Salesforce Setup interface. On the left sidebar, the navigation menu is expanded to 'Apex Triggers'. The main content area is titled 'Apex Triggers' and shows the details for the 'LaptopBooking' trigger. The trigger is created by 'Prasanth Kumar' on '26/02/2025, 10:34 pm'. The status is 'Active' with '0% (0/2)' code coverage. The 'Apex Trigger' tab is selected, showing the following Apex code:

```
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



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