

PROJECT TITLE:

A CRM APPLICATION FOR LAPTOP RENTALS

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NAME OF THE COLLEGE: K.S.R.M College of Engineering.

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TRAILHEAD-URL:

<https://www.salesforce.com/trailblazer/r6qz60ycd8sa06thnr>

PROJECT OVERVIEW:

This project focuses on creating a **CRM Application for Laptop Rentals** to address the challenge of delivering rental laptops efficiently while building strong customer relationships. The aim is to provide a seamless solution using customer relationship management (CRM) tools. By doing so, we strive to enhance customer satisfaction, streamline store operations, and boost overall efficiency. Additionally, the project emphasizes effective communication with potential customers through personalized email outreach, ensuring better engagement and long-term success for the rental business.

OBJECTIVES:

1. **Operational Objective:** Reduce manual efforts in managing rentals by automating key processes.

Specific Outcomes: Implement features for automated rental requests, approvals, and payment tracking.

2. **Customer Engagement Objective :** Enhance communication channels to maintain consistent Interaction with customers.

Specific Outcome: Enable automated email notifications for rental confirmations, reminders, and feedback collection.

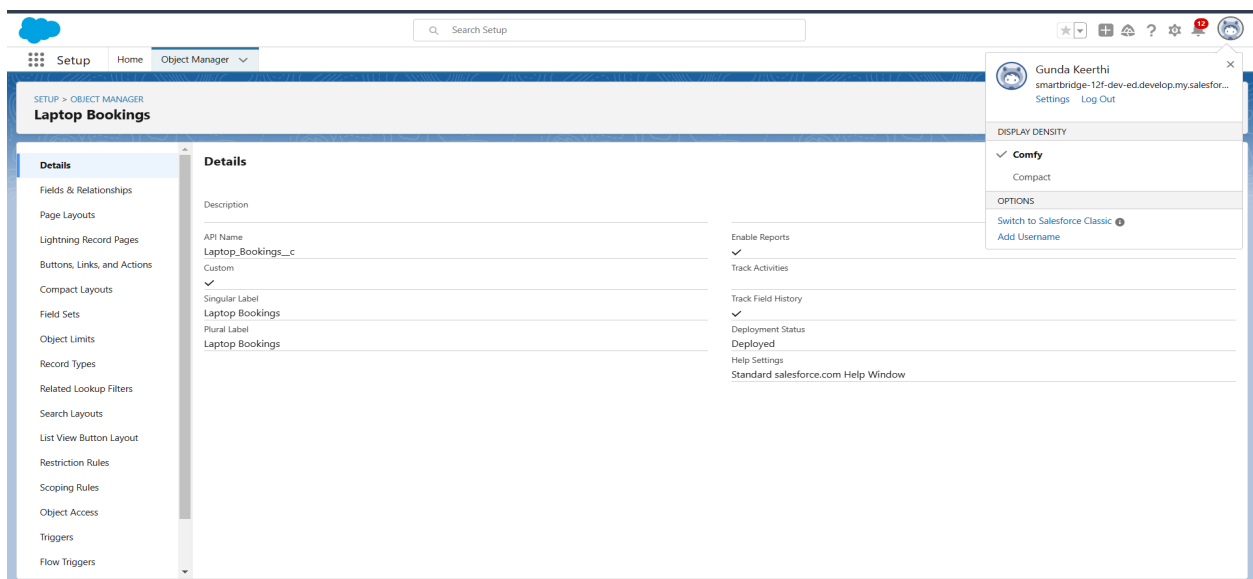
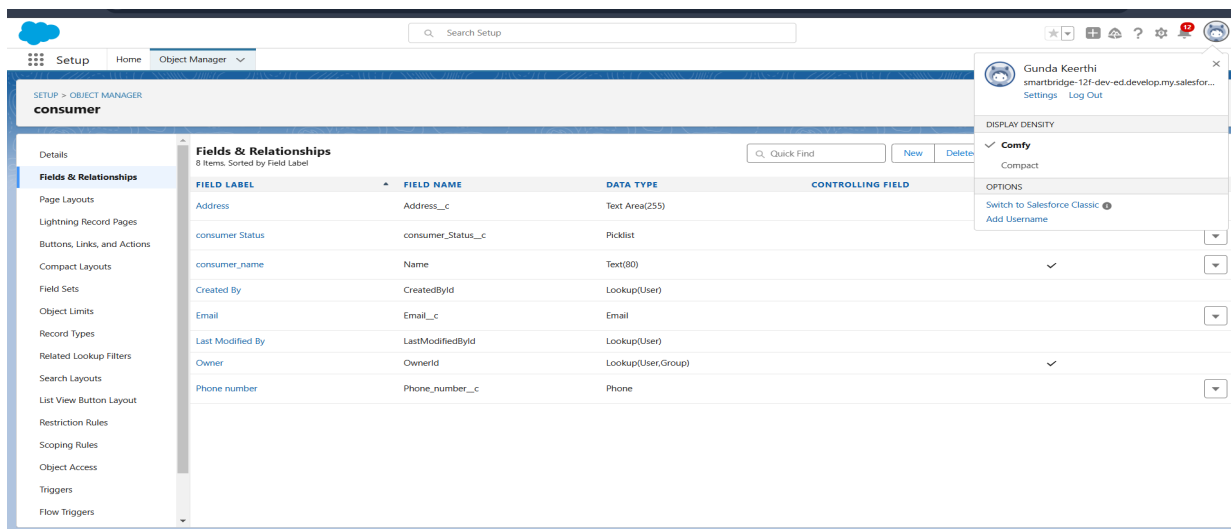
SALESFORCE KEY FEATURES & CONCEPTS UTILIZED:


- a. **Customer 360:** Centralized customer profiles to manage rental history, preferences, and contact details for a Personalized experience.
- b. **Email Integration:** Automated email communication for confirmations, payment reminders, promotional offers, and lead follow-ups.
- c. **Service Cloud:** Streamlined case management to track and resolve customer inquiries and service requests efficiently.
- d. **Salesforce Flow:** Automation of rental approvals, delivery scheduling, and payment processing for operational efficiency.
- e. **Analytics and Dashboards:** Real-time reporting and dashboards to monitor rental trends, customer behaviour, and KPIs for data-driven decisions.

DETAILED DESIGNING STEPS:

- 1. Salesforce:** Creating the foundational platform for the CRM application, ensuring configuration aligns with project requirements.
- 2. Object Creation:** Designing and configuring custom objects for managing laptops, rentals, customers, and inventory data. (consumer, Laptop Bookings, Billing Process, Total Laptops).

Screenshots:





Search Setup

SetupHomeObject Manager

SETUP > OBJECT MANAGER

Billing Process

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

Object Access

Triggers

Flow Triggers

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

Gunda Keerthi

smartbridge-12f-dev-ed.develop.my.salesfor...

SettingsLog Out

DISPLAY DENSITY


✓ Comfy

Compact

OPTIONS

Switch to Salesforce Classic

Add Username



Search Setup

SetupHomeObject Manager

SETUP > OBJECT MANAGER

Total Laptops

Details

Fields & Relationships

Page Layouts

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Restriction Rules

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Flow Triggers

Details

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

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smartbridge-12f-dev-ed.develop.my.salesfor...

SettingsLog Out

DISPLAY DENSITY

✓ Comfy

Compact

OPTIONS

Switch to Salesforce Classic

Add Username

3.Tabs: Developing intuitive tabs for easy navigation,providing quick access to objects like Rentals,Customers. and Reports.

The screenshot shows the Salesforce Setup interface for Custom Tabs. The left sidebar contains a search bar with 'tabs' and a navigation menu with 'User Interface' expanded, showing 'Rename Tabs and Labels' and 'Tabs'. The main content area is titled 'Custom Tabs' and includes a description: 'You can create new custom tabs to extend Salesforce functionality or to build new application functionality. Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web application pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.'

Below the description are three sections: 'Custom Object Tabs', 'Web Tabs', and 'Visualforce Tabs'. Each section has a 'New' button and a 'What Is This?' link. The 'Custom Object Tabs' section contains a table with the following data:

Action	Label	Tab Style	Description
Edit Del	Billing Process	Desk	
Edit Del	consumer	People	
Edit Del	Laptop Bookings	Computer	
Edit Del	Total Laptops	Laptop	

The 'Web Tabs' and 'Visualforce Tabs' sections both indicate 'No Web Tabs have been defined' and 'No Visualforce Tabs have been defined' respectively.

4.The Lightning App: Buiddng a user-friendly Lightning App with a clean interface enhance usability for store staff and customers.

The screenshot shows the Salesforce Setup interface for the Lightning Experience App Manager. The left sidebar contains a search bar with 'app' and a navigation menu with 'Salesforce Mobile App' expanded, showing 'Data', 'Apps', 'App Manager', 'AppExchange Marketplace', 'Connected Apps', 'External Client Apps', 'Settings', 'Lightning Bolt', and 'Mobile Apps'. The main content area is titled 'Lightning Experience App Manager' and includes a description: '24 items • Sorted by Last Modified Date • Filtered by All appmenuitems - TabSet Type, App Type'.

Below the description is a table with the following data:

	App Name	Developer Name	Description				
1	LAPTOP RENTALS	LAPTOP_RENTALS					
2	Automation	FlowsApp	Automate business processes and repetitive tasks.				
3	Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your industry.	26/12/2024, 12:56 pm	Lightning	✓	▼
4	Salesforce Scheduler Setup	LightningScheduler	Set up personalized appointment scheduling.	26/12/2024, 12:56 pm	Lightning	✓	▼
5	Queue Management	QueueManagement	Create and manage queues for your business.	26/12/2024, 12:53 pm	Lightning	✓	▼
6	All Tabs	AllTabSet		26/12/2024, 12:53 pm	Classic		▼
7	Subscription Management	RevenueCloudConsole	Get started automating your revenue processes	26/12/2024, 12:53 pm	Lightning	✓	▼
8	Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage recipes.	26/12/2024, 12:53 pm	Lightning	✓	▼
9	Digital Experiences	SalesforceCMS	Manage content and media for all of your sites.	26/12/2024, 12:53 pm	Lightning	✓	▼
10	Platform	Platform	The fundamental Lightning Platform	26/12/2024, 12:53 pm	Classic		▼
11	Sales	Sales	The world's most popular sales force automation (SFA) solution	26/12/2024, 12:53 pm	Classic		▼
12	Service	Service	Manage customer service with accounts, contacts, cases, and more	26/12/2024, 12:53 pm	Classic	✓	▼
13	Marketing CRM Classic	Marketing	Track sales and marketing efforts with CRM objects.	26/12/2024, 12:53 pm	Classic	✓	▼
14	App Launcher	AppLauncher	App Launcher tabs	26/12/2024, 12:53 pm	Classic	✓	▼
15	Community	Community	Salesforce CRM Communities	26/12/2024, 12:53 pm	Classic	✓	▼

5.Fields: Defining and customizing fields to capture essential data, Such as rental duration,customer details,and payment status.

6.Validation Rule: Implementing validation rules to ensure data accuracy, such as mandatory fields for rental records and email formats.

The screenshot shows the Salesforce Setup interface. The left sidebar contains a menu with options like 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, Object Access, Triggers, Flow Triggers, Validation Rules (selected), and Conditional Field Formatting. The main content area is titled 'Validation Rules' and shows a list of 1 item, sorted by Rule Name. The table has columns for Rule Name, Error Location, Error Message, Active, and Modified By. The single rule listed is 'Phonenumberoremailblankrule' with an error location of 'Top of Page' and an error message of 'Please fill the phone number and email id'. It is active and was modified by 'Gunda Keerthi' on 26/12/2024 at 6:41 pm.

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Phonenumberoremailblankrule	Top of Page	Please fill the phone number and email id	✓	Gunda Keerthi, 26/12/2024, 6:41 pm

The screenshot shows the details of the 'consumer Validation Rule'. The left sidebar is the same as the previous screenshot. The main content area is titled 'consumer Validation Rule' and includes a 'Back to consumer' link. The 'Validation Rule Detail' section shows the following information: Rule Name: Phonenumberoremailblankrule, Active: ✓, Error Condition Formula: OR(ISBLANK(Email__c) , ISBLANK(Phone_number__c)), Error Message: Please fill the phone number and email id, Error Location: Top of Page, Description: phone number and email number should not be blank, Created by: Gunda Keerthi, 26/12/2024, 6:41 pm, and Modified by: Gunda Keerthi, 26/12/2024, 6:41 pm. There are 'Edit' and 'Clone' buttons for the rule.

Validation Rule Detail	
Rule Name	Phonenumberoremailblankrule
Error Condition Formula	OR(ISBLANK(Email__c) , ISBLANK(Phone_number__c))
Error Message	Please fill the phone number and email id
Description	phone number and email number should not be blank
Created by	Gunda Keerthi, 26/12/2024, 6:41 pm
Modified by	Gunda Keerthi, 26/12/2024, 6:41 pm

7.Profiles: Configuring user profiles to control access permissions and ensure data security based on use roles.(Owner & Agent)

The screenshot shows the Salesforce Setup interface for Profiles. The left sidebar has a search bar with 'prof' and a list of items under 'Users', including 'Profiles'. The main content area is titled 'Profiles' and includes a 'New Profile' button and a table with one profile: 'Salesforce' with 'Salesforce' as the User License. The right sidebar shows the user 'Gunda Keerthi' and a 'DISPLAY DENSITY' dropdown set to 'Comfy'.

Action	Profile Name	User License	Custom
<input type="checkbox"/> Edit Del ...	Salesforce	Salesforce	<input checked="" type="checkbox"/>

The screenshot shows the Salesforce Setup interface for Profiles with multiple profiles listed. The left sidebar has a search bar with 'prof' and a list of items under 'Users', including 'Profiles'. The main content area is titled 'Profiles' and includes a 'New Profile' button and a table with five profiles: 'Agent', 'Analytics Cloud Integration User', 'Analytics Cloud Security User', 'Authenticated Website', and 'Authenticated Website'. The right sidebar shows the user 'Gunda Keerthi' and a 'DISPLAY DENSITY' dropdown set to 'Comfy'.

Action	Profile Name	User License	Custom
<input type="checkbox"/> Edit Del ...	Agent	Salesforce Platform	<input checked="" type="checkbox"/>
<input type="checkbox"/> Edit Clone	Analytics Cloud Integration User	Analytics Cloud Integration User	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Analytics Cloud Security User	Analytics Cloud Integration User	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Authenticated Website	Authenticated Website	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Authenticated Website	Authenticated Website	<input type="checkbox"/>

8.Roles and Hierarchy: Establishing role hierarchies to streamline user responsibilities and define data visibility across the organization.(Owner)

The screenshot shows the Salesforce Setup interface for the 'Roles' section. The left sidebar contains a navigation menu with 'Setup', 'Home', and 'Object Manager'. The main content area is titled 'Roles' and 'Creating the Role Hierarchy'. It explains that users can build on the existing role hierarchy and provides a tree view of the current hierarchy. The hierarchy starts with 'SmartBridge' at the top, followed by 'CEO', 'CFO', 'COO', 'owner', 'Agents', 'SVP_Customer Service & Support', 'Customer.Support.International', 'Customer.Support.North.America', 'Installation & Repair.Services', 'SVP.Human.Resources', and 'SVP.Sales & Marketing'. Each role has an 'Add Role' button and links for 'Edit', 'Del', and 'Assign'. A right sidebar shows the user's profile 'Gunda Keerthi' and display density options.

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

SmartBridge

- CEO** (Add Role, Edit, Del, Assign)
- CFO** (Add Role, Edit, Del, Assign)
- COO** (Add Role, Edit, Del, Assign)
- owner** (Add Role, Edit, Del, Assign)
- Agents** (Add Role, Edit, Del, Assign)
- SVP_Customer Service & Support** (Add Role, Edit, Del, Assign)
- Customer.Support.International** (Add Role, Edit, Del, Assign)
- Customer.Support.North.America** (Add Role, Edit, Del, Assign)
- Installation & Repair.Services** (Add Role, Edit, Del, Assign)
- SVP.Human.Resources** (Add Role, Edit, Del, Assign)
- SVP.Sales & Marketing** (Add Role, Edit, Del, Assign)

9.Users: Setting up user accounts and roles for store operators, admins, and managers to facilitate secure and efficient CRM usage.

The screenshot shows the Salesforce Setup interface for the 'Users' section. The left sidebar contains a navigation menu with 'Setup', 'Home', and 'Object Manager'. The main content area is titled 'Users' and 'All Users'. It provides instructions on how to create, view, and manage users. Below the instructions 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', 'Keerthi Gunda', 'ram_ram', 'User.Integration', 'User.Security', and 'y_xicky'. A right sidebar shows the user's profile 'Gunda Keerthi' and display density options.

Users

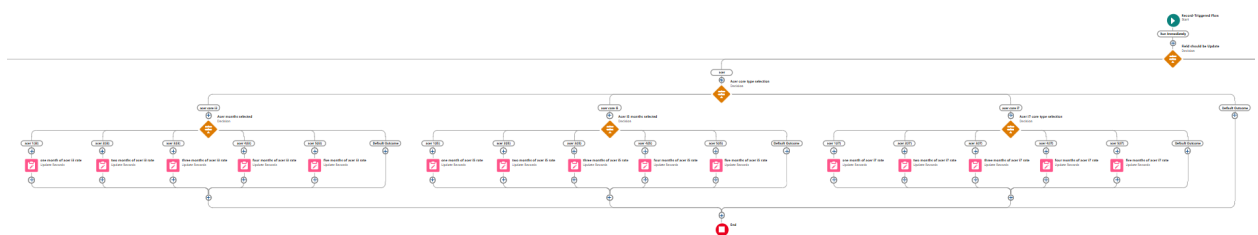
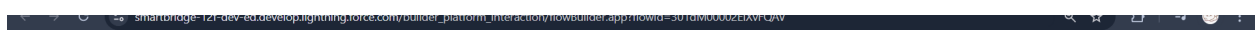
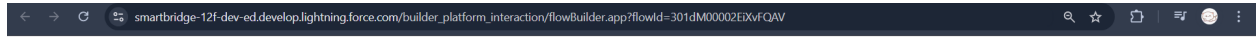
All Users

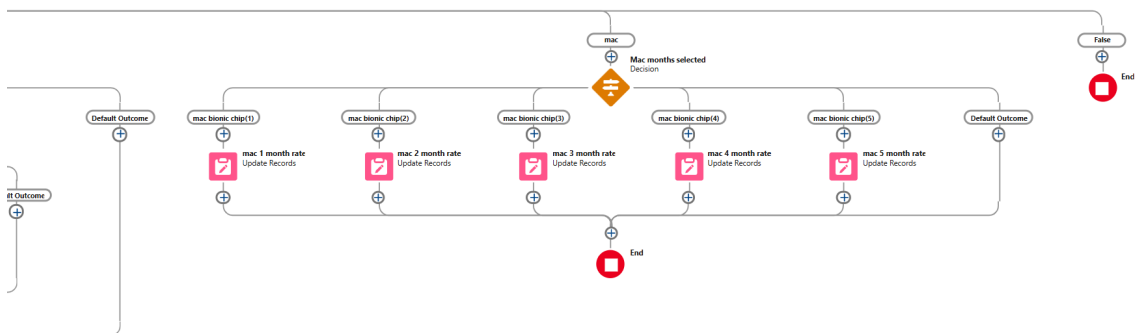
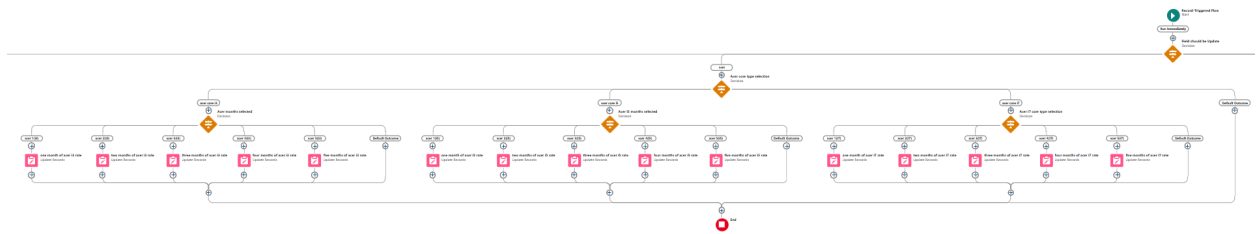
On this page you can create, view, and manage users. To get more licenses, use the Your Account app. Let's Go

View: **All Users** (Edit, Create New View)

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatty.00ddm00000hueshuat.lmrou0ou2z@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit	Keerthi Gunda	GKeer	ladyoo0@rentalsc3.com		✓	System Administrator
<input type="checkbox"/> Edit	ram_ram	rram	keerthi@12gmail.com	Agent	✓	Agent
<input type="checkbox"/> Edit	User.Integration	integ	Integration@00ddm00000hueshuat.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User.Security	sec	Insightssecurity@00ddm00000hueshuat.com		✓	Analytics Cloud Security User
<input type="checkbox"/> Edit	y_xicky	yx	keerthi@431gmail.com	owner	✓	Standard User

1 0.FIOWS:Automating business processes like rental approvals,payment confirmations,delivery notifications using Salesforce Flows.(complete screen shots).





11.APEX: Developing custom logic using APEX for advanced automation, such as inventory updates or customer notifications.

The screenshot shows the Salesforce Developer Console with the Apex class `LaptopBookingHandler.apxc` open. The class contains a static method `sendEmailNotification` that takes a list of `Laptop_Bookings__c` and sends a welcome email to each record's email address. The email subject is 'Welcome to our company' and the body is a personalized message.

```
1 public class LaptopBookingHandler {
2     public static void sendEmailNotification (List<Laptop_Bookings__c> lapList){
3         for(Laptop_Bookings__c lap:lapList)
4         {
5             Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
6             email.setToAddresses( new List<String>{lap.Email__c});
7             email.setSubject('Welcome to our company');
8             string body = 'Dear Customer, \n';
9             body += 'Welcome to Laptop Rentals! You have been seen as a valuable customer to us.\n Please continue your journey with us, while we tr
10
11             email.setPlainTextBody(body);
12             Messaging.sendEmail(new List<Messaging.SingleEmailMessage>{email});
13         }
14     }
15 }
```

The Logs tab at the bottom shows a table of log entries:

User	Application	Operation	Time	Status	Read	Size
Gunda Keerthi	Browser	/aura	12/27/2024, 5:25:48 PM	Success	Unread	12.81 KB
Gunda Keerthi	Unknown	common.api.soap.DirectSoap	12/27/2024, 5:25:48 PM	Success	Unread	485 bytes
Gunda Keerthi	Browser	/aura	12/27/2024, 5:16:59 PM	Success	Unread	763 bytes
Gunda Keerthi	Browser	/aura	12/27/2024, 5:16:44 PM	Success	Unread	751 bytes

The screenshot shows the Salesforce Developer Console with the Apex trigger `LaptopBooking.apxt` open. The trigger is a `trigger LaptopBooking on Laptop_Bookings__c (After insert,after update)` that calls the `sendEmailNotification` method of the `LaptopBookingHandler` class when a new record is inserted or updated.

```
1 trigger LaptopBooking on Laptop_Bookings__c (After insert,after update) {
2     if(trigger.isAfter && ( trigger.isInsert || trigger.isupdate))
3     {
4         LaptopBookingHandler.sendEmailNotification(trigger.new);
5     }
6 }
```

The Logs tab at the bottom shows a table of log entries:

User	Application	Operation	Time	Status	Read	Size
Gunda Keerthi	Browser	/aura	12/27/2024, 5:25:48 PM	Success	Unread	12.81 KB
Gunda Keerthi	Unknown	common.api.soap.DirectSoap	12/27/2024, 5:25:48 PM	Success	Unread	485 bytes
Gunda Keerthi	Browser	/aura	12/27/2024, 5:16:59 PM	Success	Unread	763 bytes
Gunda Keerthi	Browser	/aura	12/27/2024, 5:16:44 PM	Success	Unread	751 bytes

12.Reports: Creating detailed reports to analyze rental trends, customer engagement, and revenue growth.

REPORT

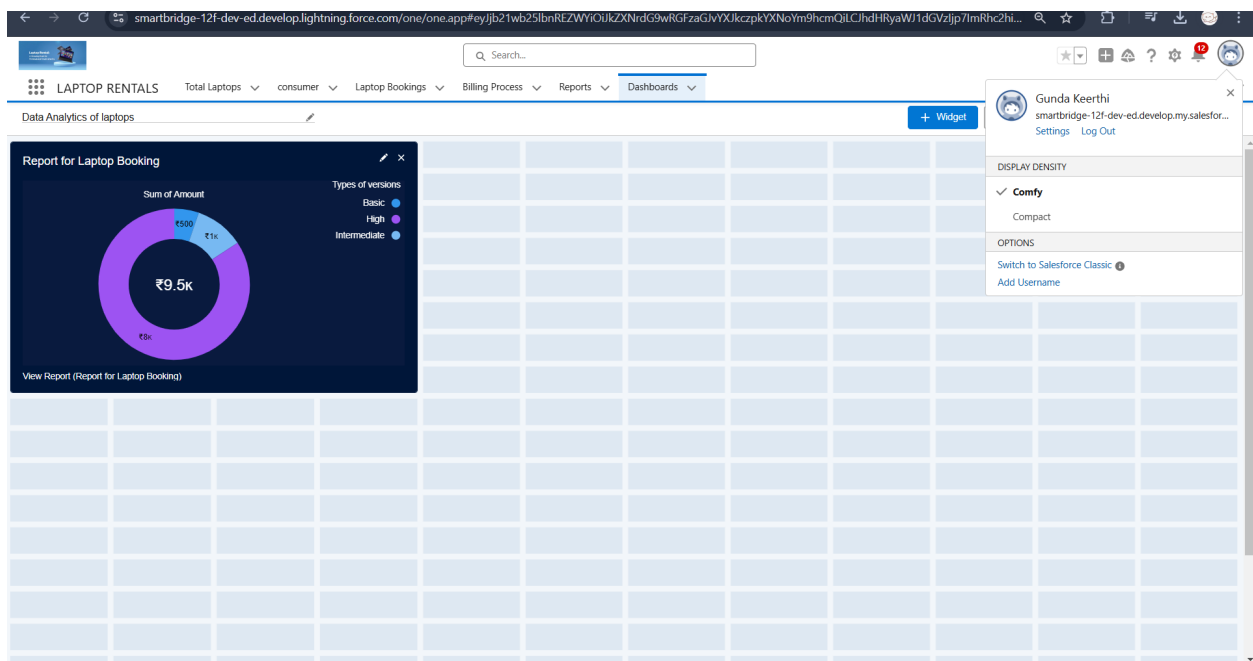
New Report [Total Laptops with Laptop Bookings and Customers](#) [Add Chart](#)

Previewing a limited number of records. Run the report to see everything.

Types of versions	Total Laptops: Total Laptops	Laptop Bookings: Laptop Bookings	Customer: Name	Amount	Laptops Available
Basic (1)	Hp core i5 50	Hp i5	Gunda	₹500	48
Subtotal				₹500	48
Intermediate (1)	Hp core i5 50	Hp i5 booking	Gunda	₹1,000	48
Subtotal				₹1,000	48
High (1)	Dell core i7 30	Dell i7 booking	Gunda	₹8,000	49
Subtotal				₹8,000	49
Total (3)				₹9,500	97

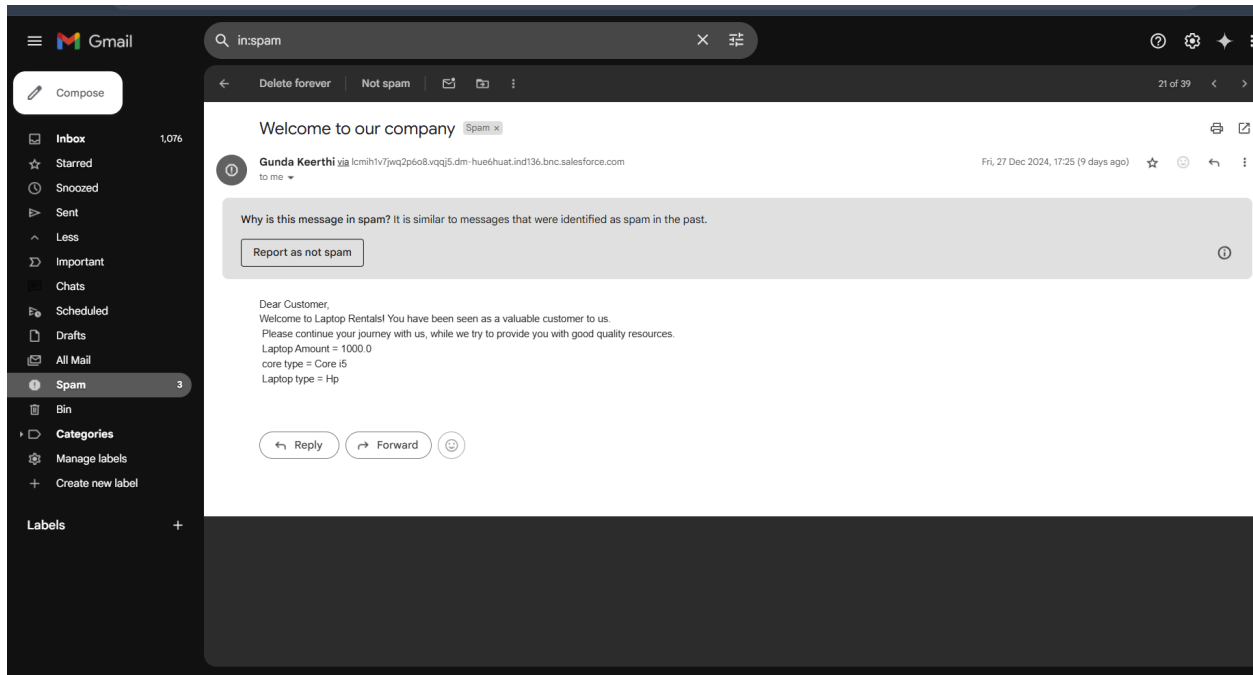
Row Counts ☒ Detail Rows ☒ Subtotals ☒ Grand Total ☒ Conditional Formatting

13.Dashboards: Design visual dashboards to provide a real-time overview of key metrics like pending rentals, payments, and business performance.

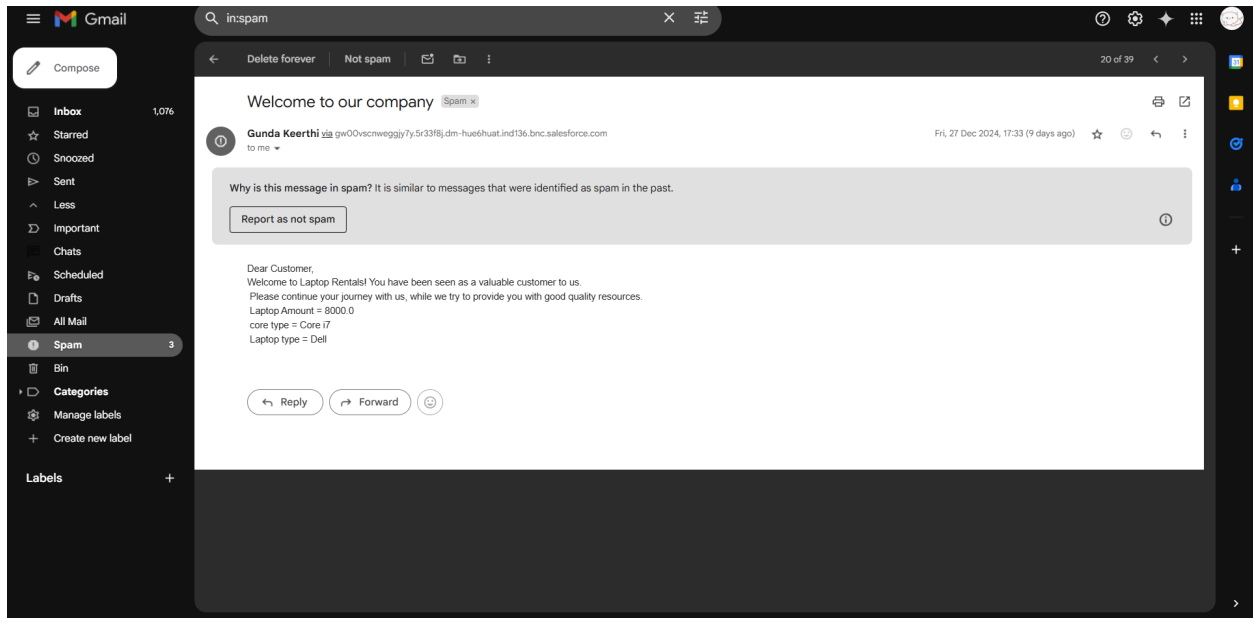


TESTING & VALIDATION:

Consumer Mail Testing:



Owner Daily Report Testing:



Report for Laptop Booking
As of 28/12/24 at 8:00 AM · Viewing as Gunda Keerthi

[OPEN IN SALESFORCE](#)

Details

Filters

My total laptops Total Laptops: Created Date: All time

Summary

Total Records	Total Amount	Total Laptops Available
3	₹9,500	97

Types of versions	Total Laptops: Total Laptops	Laptop Bookings: Laptop Bookings	Customer: Name	Amount Sum	Laptops Available Sum
Basic (1 record)	Hp core i5 50	Hp i5	Gunda	₹500	48
Intermediate (1 record)	Hp core i5 50	Hp i5 booking	Gunda	₹1,000	48
High (1 record)	Dell core i7 30	Dell i7 booking	Gunda	₹8,000	49
Grand Total (3 records)				₹9,500	97

SCENARIOS ADDRESSED:

1. **Rental Management:** Streamlined tracking of rental requests, approvals, and deliveries.
2. **Customer Communication:** Automated emails for confirmations, reminders, and follow-ups.

Data Accuracy: Validation rules ensure consistent and error-free data.

User Access Control: Role-based permissions for secure data access.

Performance Monitoring: Reports and dashboards provide real-time business insights.

CONCLUSION:

Summary of Achievements:

1. Streamlined laptop rental management through automated processes like rental approvals, delivery tracking, and communication.
2. Ensured data accuracy with validation rules standardized processes.
3. Improved customer engagement using automated email notifications for confirmations, reminders, and follow-ups.
4. Enhanced operational efficiency with role-based access control for secure and organized workflows.
5. Provided actionable business insights through real-time reports and dashboards, enabling data-driven decision-making.
6. Achieved overall goals of improved customer satisfaction. optimized store operations. and business growth.