

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.

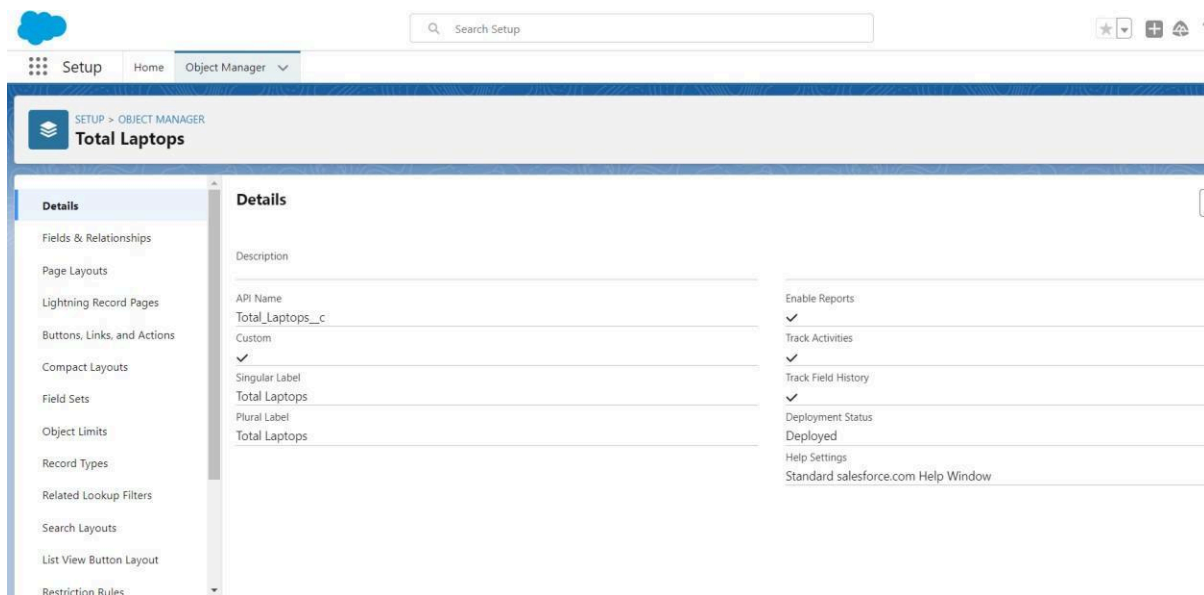
Detailed Setup Instructions:

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**

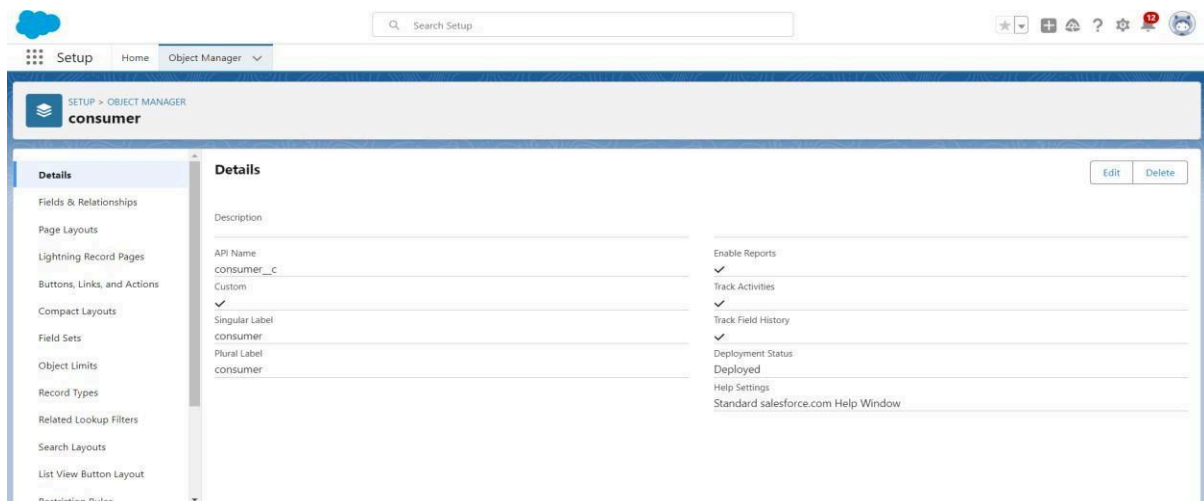
- **Track Field History**
- **Click Save.**
- **Repeat for the following Custom Objects:**
 - **Consumer**
 - **Laptop Booking**
 - **Billing Process**

Total Laptops Object :



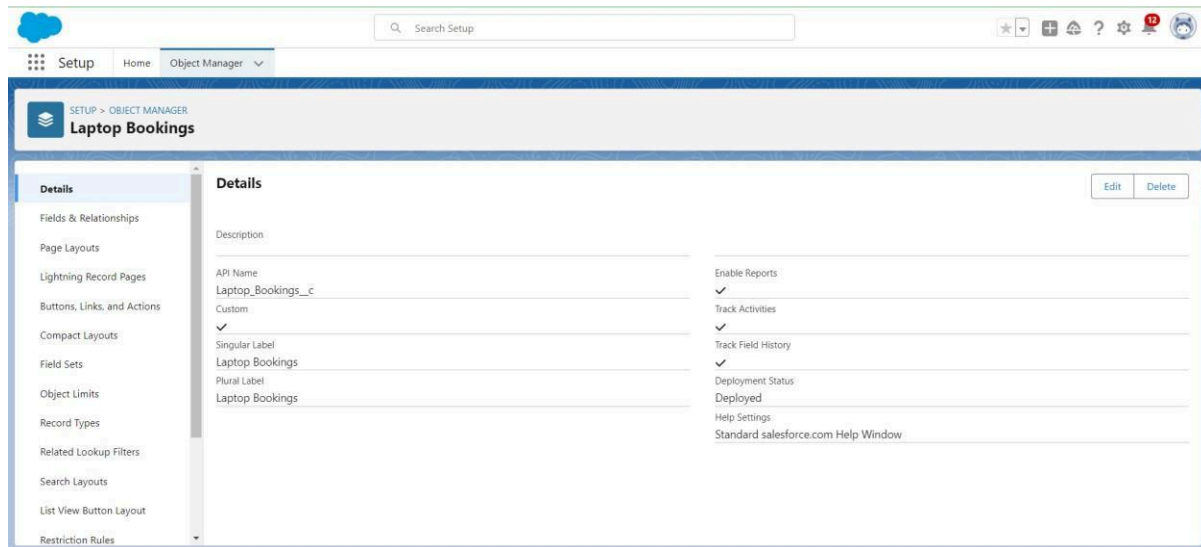
The screenshot shows the Salesforce Setup interface for the 'Total Laptops' custom object. The left sidebar contains a navigation menu with options like Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules. The main content area is titled 'Details' and includes a description field, API Name (Total_Laptops_c), Custom checkbox (checked), Singular Label (Total Laptops), Plural Label (Total Laptops), 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).

consumer Object :

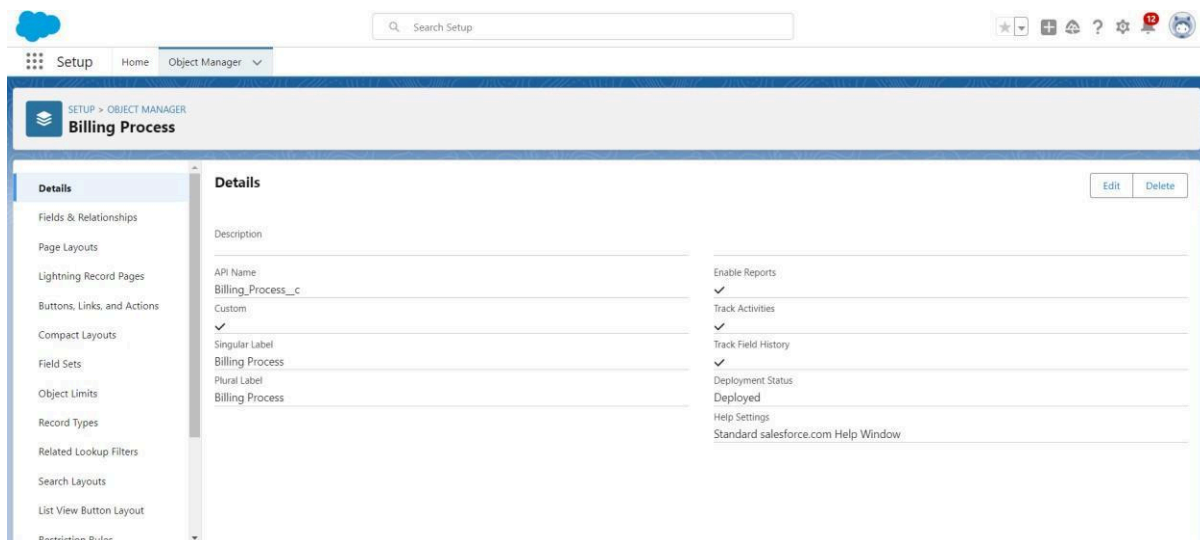


The screenshot shows the Salesforce Setup interface for the 'consumer' custom object. The left sidebar contains a navigation menu with options like Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules. The main content area is titled 'Details' and includes a description field, API Name (consumer_c), Custom checkbox (checked), Singular Label (consumer), Plural Label (consumer), 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). There are 'Edit' and 'Delete' buttons in the top right corner.

Laptop Booking Object:



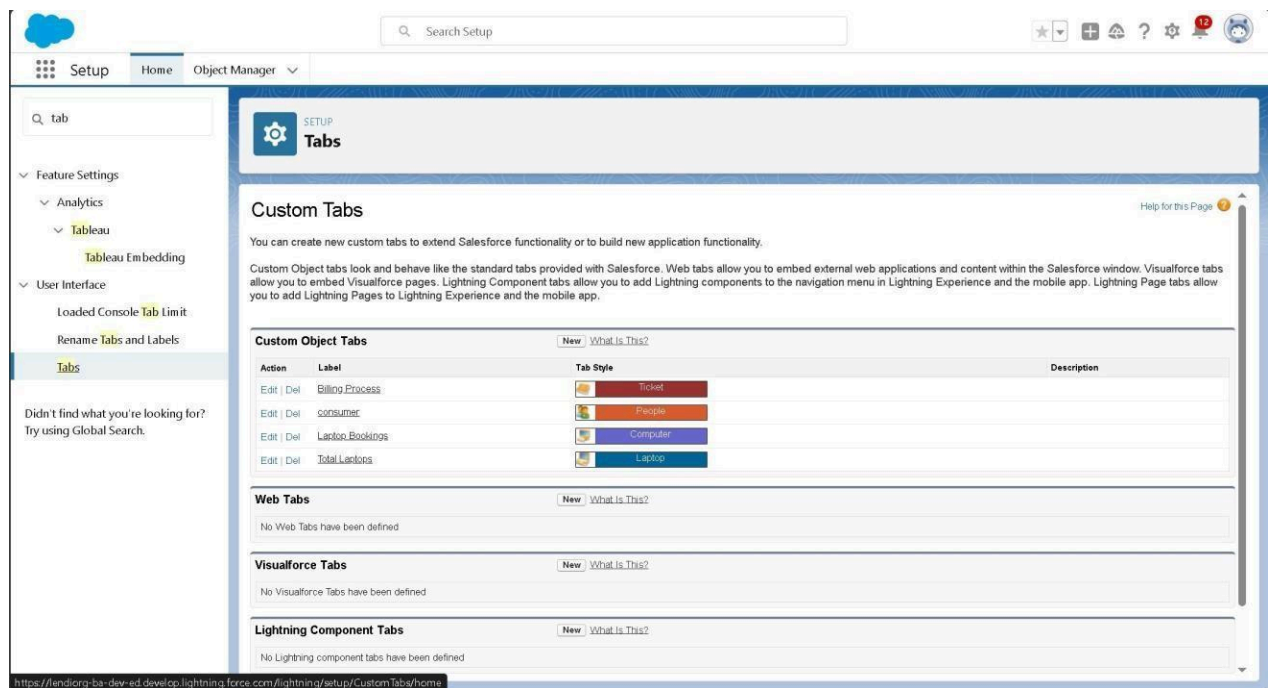
Billing Process Object:



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 Prosses**

Tabs:



1. 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:

Lightning App Builder
App Settings
Pages
LAPTOP RENTALS
Help

App Settings
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
LAPTOP RENTALS

Developer Name
LAPTOP_RENTALS

Description
Enter a description...

App Branding

Image

Primary Color Hex Value
#0070C2

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

App Launcher Preview

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 form that that item doesn't support.

Available Items

- 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 Logins
- consumer
- Laptop Bookings
- Billing Process

App User Profiles:

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

- Agent
- Analytics Cloud Integration User
- Analytics Cloud Security User
- Authenticated Website
- Authenticated Website
- B2B Receiving 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 TotalLaptops, Consumer, Laptop Booking, and Billing Process objects.

The screenshot shows the Salesforce Setup interface for the 'Total Laptops' object. The left sidebar contains navigation links: Details, Fields & Relationships (selected), 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 'Fields & Relationships' and shows a table of 6 items, sorted by Field Label. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are: Created By (CreatedBy, 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)), and Total Laptops (Name, Text(80)).

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedBy	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)		✓

Consumer Fields:

The screenshot shows the Salesforce Setup interface for the 'Consumer' object. The left sidebar contains navigation links: Details, Fields & Relationships (selected), 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 'Fields & Relationships' and shows a table of 8 items, sorted by Field Label. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are: Address (Address__c, Text Area(255)), consumer Status (consumer_Status__c, Picklist), consumer_name (Name, Text(80)), Created By (CreatedBy, Lookup(User)), Email (Email__c, Email), Last Modified By (LastModifiedById, Lookup(User)), Owner (OwnerId, Lookup(User,Group)), and Phone number (Phone_number__c, Phone).

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	CreatedBy	Lookup(User)		
Email	Email__c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone number	Phone_number__c	Phone		

Laptop Booking Fields:

The screenshot shows the 'Laptop Bookings' object in the Salesforce Object Manager. The 'Fields & Relationships' tab is selected, displaying 11 fields sorted by label. The fields are:

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 Fields:

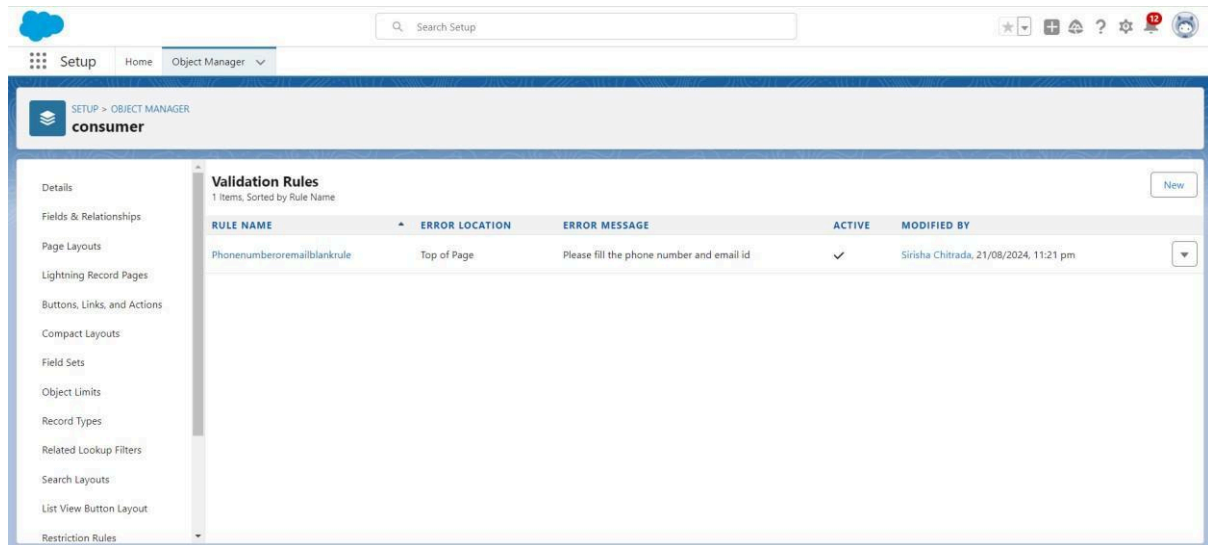
The screenshot shows the 'Billing Process' object in the Salesforce Object Manager. The 'Fields & Relationships' tab is selected, displaying 7 fields sorted by label. The fields are:

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:** Phonenumoremailblankrule
 - **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**.

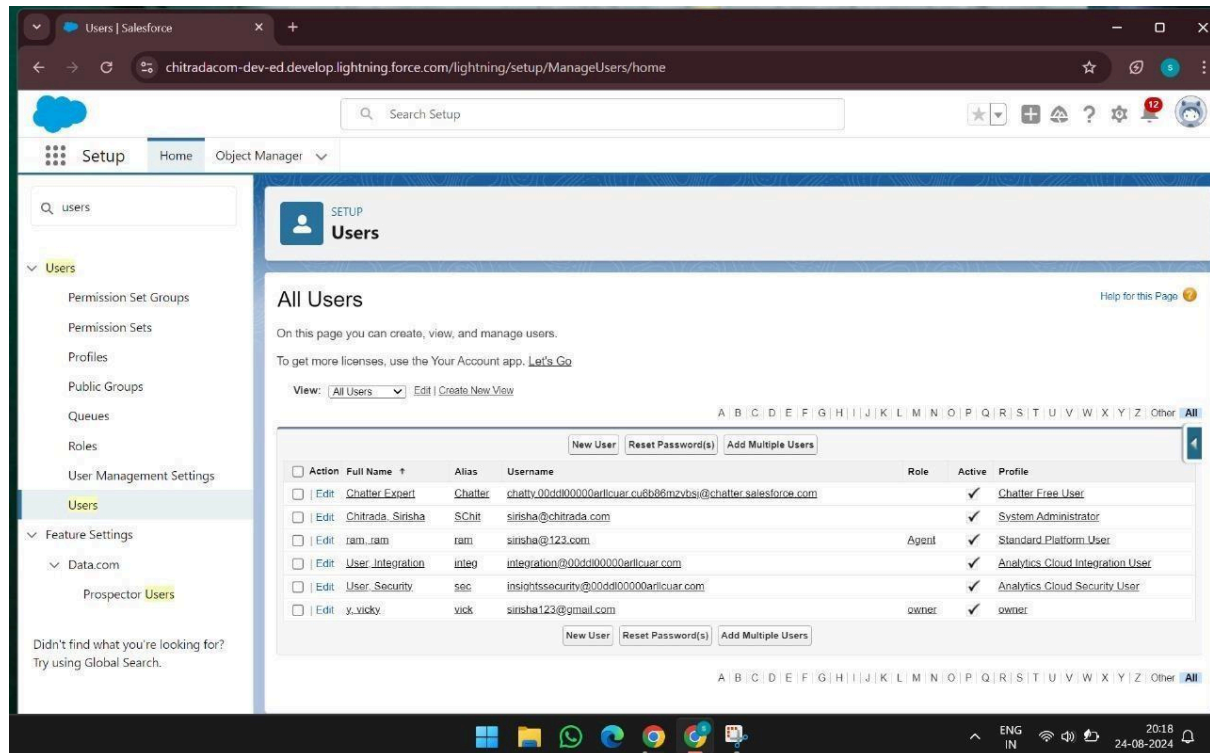
Rule:



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 tous.\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 laptopsavailable, booking status, and customer details.
- **Create a Dashboard:** Place the generated reports on a Salesforce dashboard forquick and easy visualization.

Report:

Screenshot of a web browser displaying the Salesforce Lightning interface. The address bar shows the URL: `lnct-e2-dev-ed.develop.lightning.force.com/lightning/r/Dashboard/01ZWU0000010Qef2AE/view?queryScope=userFolders`. The page title is "LAPTOP RENTALS". The navigation menu includes "Total Laptops", "consumer", "Laptop Bookings", "Billing Process", "Dashboards", "Reports", and "Analytics". A sidebar titled "New Report" displays a table with columns: consumer, Laptop Bookings, Total No Of Lapto..., cor..., and Pi.

consumer, co...	Laptop Bookings: --	Total No Of Lapto...	cor...	Pi
anant	ibook4	50	Bioni	M
anant	ibook6	50	Core	H
deepa	ibook2	50	Core	D
deepak	ibook2	50	core	A
poonam	ibook	50	core	D

Dashboard:

The screenshot shows a web browser window displaying a Salesforce dashboard. The browser's address bar shows the URL: `lnct-e2-dev-ed.develop.lightning.force.com/lightning/r/Dashboard/01ZWU0000010Qef2AE/view?queryScope=userFolders`. The browser tabs include 'DA Of laptop | Salesforce' and 'Project Documentation - Google'. The dashboard header features the Salesforce logo, a search bar, and navigation links: 'LAPTOP RENTALS', 'Total Laptops', 'consumer', 'Laptop Bookings', 'Billing Process', and 'Dashboards'. A user profile dropdown menu is open, showing the user's name 'Divyanshi Agrawal', email 'lnct-e2-dev-ed.develop.my.salesforce.com', and options for 'Settings' and 'Log Out'. The dropdown also displays 'DISPLAY DENSITY' as 'Comfy' and 'OPTIONS' including 'Switch to Salesforce Classic' and 'Add Username'. The main content area shows a 'New Report' table with columns: 'consumer: co...', 'Laptop Bookings: --', 'Total No Of Lapto...', 'cor--', and 'Pi'. The table contains five rows of data. Below the table is a 'View Report (New Report)' link. The Windows taskbar at the bottom shows the time as 11:55 on 02-10-2024.

consumer: co...	Laptop Bookings: --	Total No Of Lapto...	cor--	Pi
anant	ibook4	50	Bioni	M
anant	ibbok6	50	Core	H
deepa	ibook2	50	Core	D
deepak	ibook2	50	core	Av
poonam	ibook	50	core	D

