PROJECT REPORT

A CRM APPLICATION FOR LAPTOP RENTALS

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A CRM APPLICATION FOR LAPTOP RENTALS

Project Overview:

This project is focused on A CRM Application for Laptop Rentals is designed to address the primary challenge is to deliver the laptops in easy way and know how many laptops are delivered today, and what are the remaining stock. This CRM applications shows the detail informations about the how many laptops are taken to rent, which type or which company type laptops are take the customers mostly. The goal is to deliver a comprehensive solution by the number one CRM application is Salesforce platform. Through this project, we aim to increase the stock and give the best customer service.

Objectives:

Through this project to attract the greater number of customer and increase the more number of sales. And the customers will satisfy to the company services.

Salesforce key Features and Concepts Utilized:

Salesforce features stand as some of the best CRM (Customer Relationship Management) features in the international business marketplace. The database provides features such as extensive sales, Cloud, and Marketing systems, complete with Analytics and Marketing Services.

1. Objects

Objects in Salesforce represent tables in the database that store data. There are two main types of objects:

- **Standard Objects**: Predefined by Salesforce, such as Account, Contact, Opportunity, Lead, etc.
- **Custom Objects**: Created by users to store data that is specific to the business needs.

Each object has fields (columns) that define the type of data it can store. These fields can be of various types like text, number, date, picklist, etc.

- **Record Types**: Define different business processes, picklist values, and page layouts for an object.

- **Relationships**: Objects can be related to each other via Lookups, Master-Detail relationships, or Many-to-Many relationships.

2. Tabs

Tabs provide an easy way to access Salesforce records and functionality. There are different types of tabs:

- **Standard Tabs**: Represent standard objects like Accounts, Contacts, and Opportunities.
- **Custom Tabs**: Created for custom objects, Visualforce pages, or Lightning components.
- **Visualforce Tabs**: Used to display a Visualforce page as a tab.
- **Lightning Component Tabs**: Used to display a Lightning Web Component (LWC) as a tab.

Tabs help in organizing data and making it easily accessible within the Salesforce interface.

3. Flows

Salesforce Flows enable the automation of business processes. They are part of Salesforce's broader suite of tools for declarative automation. Flows are a type of **workflow automation tool** that can be used to:

- **Guide users through a series of steps** (using Flow Builder).
- **Automate complex business processes** that involve multiple steps, like creating records, updating fields, sending emails, etc.

Types of flows include:

- **Screen Flows**: Allow interaction with the user through screens (forms, decisions, etc.).
- **Autolaunched Flows**: Run automatically without user interaction, usually triggered by records being created or updated.

4. Apex Classes

Apex is Salesforce's programming language that allows developers to write custom logic on the Salesforce platform. **Apex classes** are the building blocks of Apex programming and are used to define reusable code that encapsulates logic.

- **Apex Classes** allow the creation of complex business logic.
- They can be invoked via triggers, custom controllers for Visualforce pages, or called directly by other Apex classes.

- They support object-oriented programming concepts like inheritance, polymorphism, and encapsulation.

5. Apex Triggers

Apex triggers allow developers to perform custom actions before or after specific changes are made to Salesforce records (like insert, update, delete, or undelete).

- **Trigger Events**: Common events include before insert, after update, before delete, etc.
- **Trigger Context Variables**: Provide information about the records being processed.
- **Bulk Operations**: Apex triggers are designed to handle bulk operations efficiently (handling multiple records at once).

Triggers are useful for automating backend processes when data changes, such as sending notifications or updating related records.

6. Lightning Web Components (LWC)

Lightning Web Components (LWC) is a modern, lightweight framework for building web applications on Salesforce. It enables developers to build reusable, fast, and dynamic components in the Salesforce Lightning Experience and Salesforce Mobile.

Key features:

- **Built on Web Standards**: LWC leverages modern JavaScript and web standards (like ES6+).
- **Component-Based**: Each LWC is a self-contained unit that interacts with other components via events.
- **Enhanced Performance**: LWC is optimized for faster rendering and low latency.
- **Declarative UI**: LWC allows for intuitive creation of user interfaces that integrate seamlessly with Salesforce data.
- **Integration with Apex**: LWC can make Apex calls to access server-side logic.

LWCs can be used in various contexts:

- **Standalone LWCs**: Embedded directly into Lightning pages.
- **Aura Components**: LWC can be used within Aura components, enabling backward compatibility.

Key Differences Between Apex and LWC:

- **Apex** is a server-side programming language used to perform complex logic and interact with the database.
- **LWC** is a client-side technology used to build interactive and dynamic UIs.

7. Contact and Account Management

Salesforce CRM ensures efficient and easy contact management by providing access to customer data and a history of customer interaction. This Salesforce feature provides access to an extensive view of insights and strategies which will improve customer engagement.

You have the ability to apply customers' social data to gain a better understanding of specific behavior regarding any product or service. Cloud-based contact management allows you to easily coordinate within your company. Share insights, campaigns, or important documents to create a workplace for content awareness.

8. Opportunity Management

Opportunity management is one of the key Salesforce features. This shows the clients' behavior-timeline and illustrates the different stages of a specific deal that will help you decide on your next step. Along with business competitors, you can also view important facts of a timeline dedicated to a certain activity. In addition, available templates provide a trouble-free emailing strategy system to clients.

9. Lead Management

Lead management is the Salesforce feature with a particular advantage: an activity timeline. This provides access to the up-to-date activity of contacts with best practices in certain industries and uses the sales path to comprehend related documents. Salesforce functions as a quick and efficient lead converter while informing the user about the original lead source while auto emailing boosts the generating of revenue. Typically, an email inbox overloads with thousands of emails each day. Without a CRM tool, it's tough to keep track. Salesforce CRM automatically scores your leads and assigns the lead to the right executive first hand.

10. Reports and Dashboard

Salesforce keeps accurate sales forecast reports you may customize yourself. Simply click and drag the fields, groupings, filters, and charts you like, and view them in real-time. Optimize charts in your report and track team performance on the same screen, with dashboards and other sales reporting tools that allow you to quickly make changes to elements in order to get the most essential information.

Detail Steps to Solution Design:

Create Object for ‘Total Laptops’: This Object stores the data of Total Laptops

From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.

1) Enter the label name>> Total Laptops

2) Plural label name>> Total Laptops

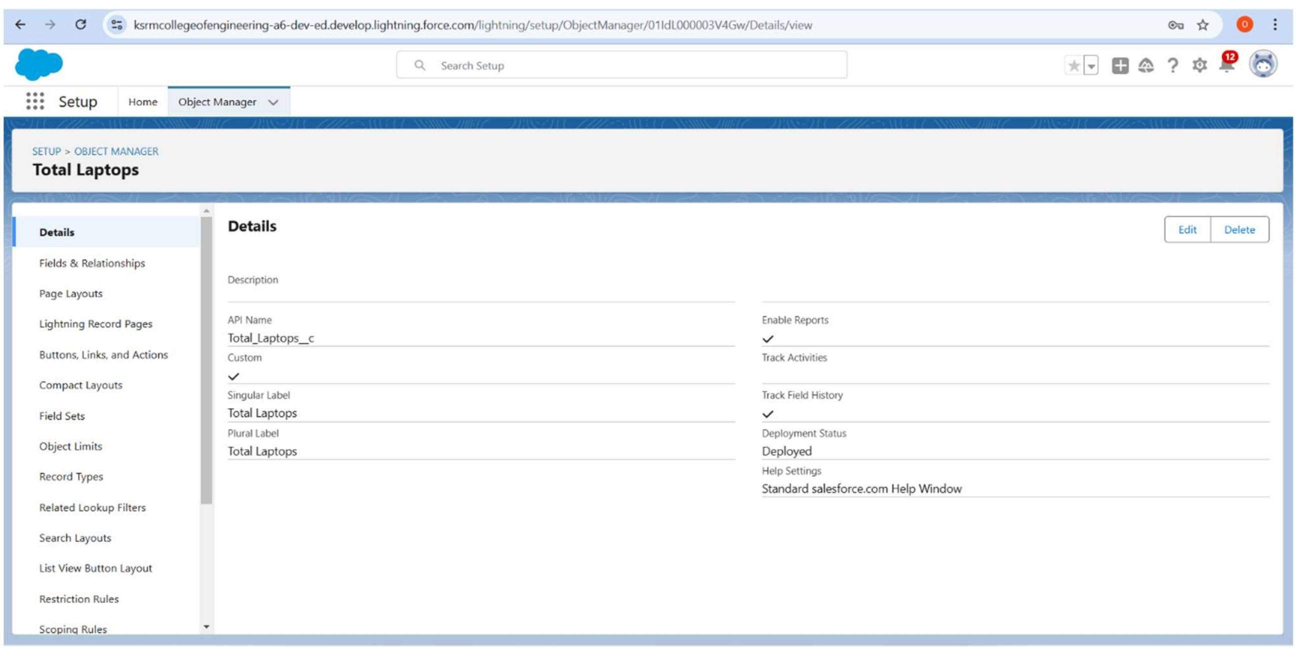
3) Enter Record Name Label and Format

Record Name >>Total Laptops and Data Type >> Text

Click on Allow reports, Allow search and Track Field History,

Allow search >> Save.

API Name is Total_Laptops__c



Create Object for ‘Consumer’: This Object stores the consumers data.

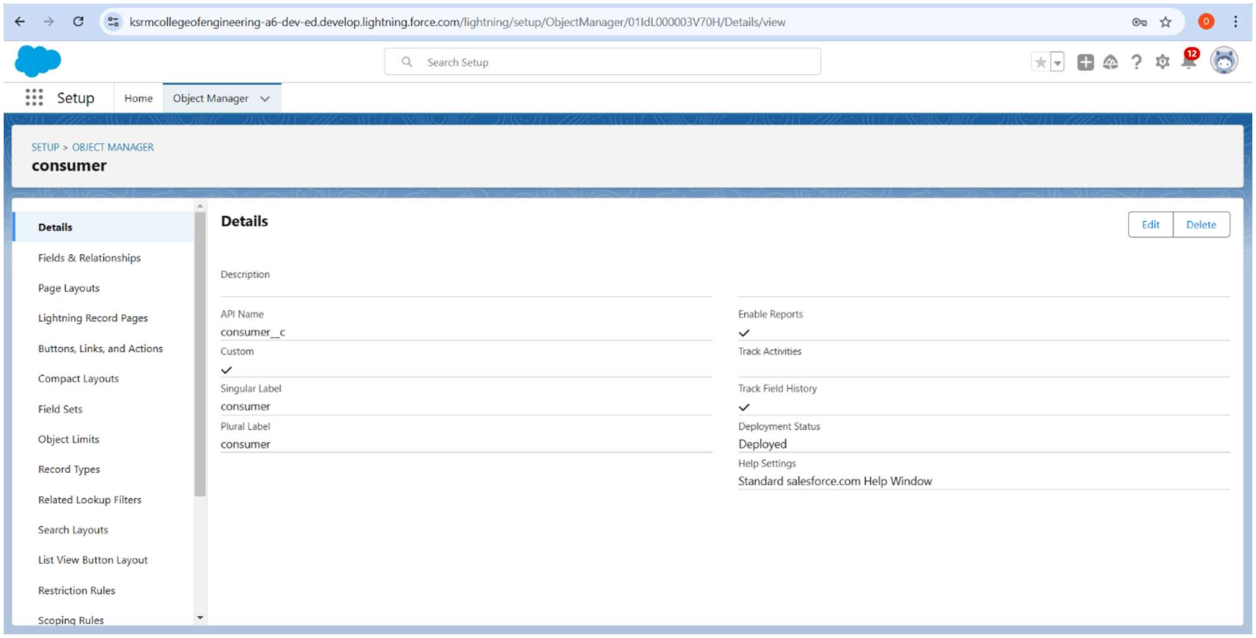
Same as like previous Object.

1) Enter the label name>> Consumer

2) Plural label name>> Consumer

3) Enter Record Name Label and Format

API Name is Consumer__c



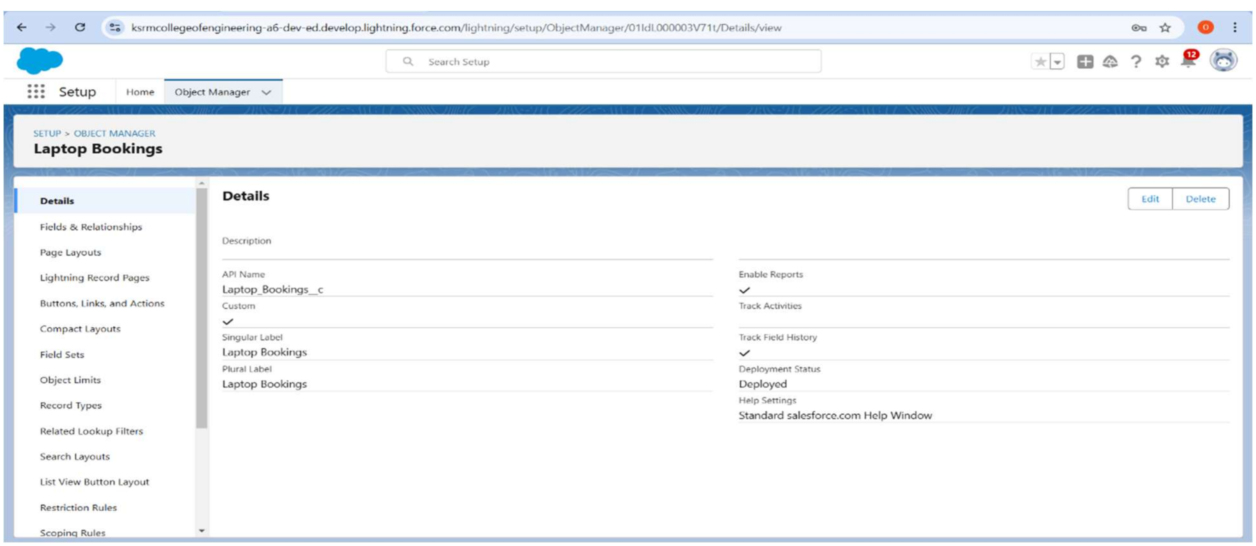
Create Object for 'Laptop Bookings': This Object stores the data of Laptop Bookings.

1) Enter the label name>> Laptop Bookings

2) Plural label name>> Laptop Bookings

3) Enter Record Name Label and Format

API Name is Laptop_Bookings__c



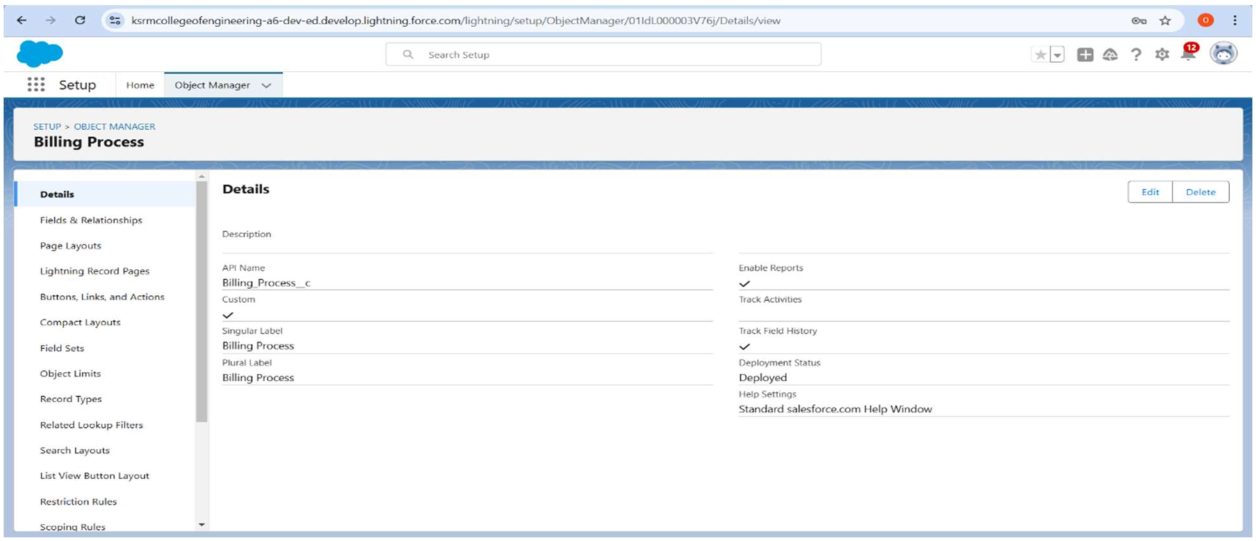
Create Object for 'Billing Process': This Object stores the data of Billing Process.

1) Enter the label name >> Billing Process

2) Plural label name >> Billing Process

3) Enter Record Name Label and Format

API Name is Billing_Process__c

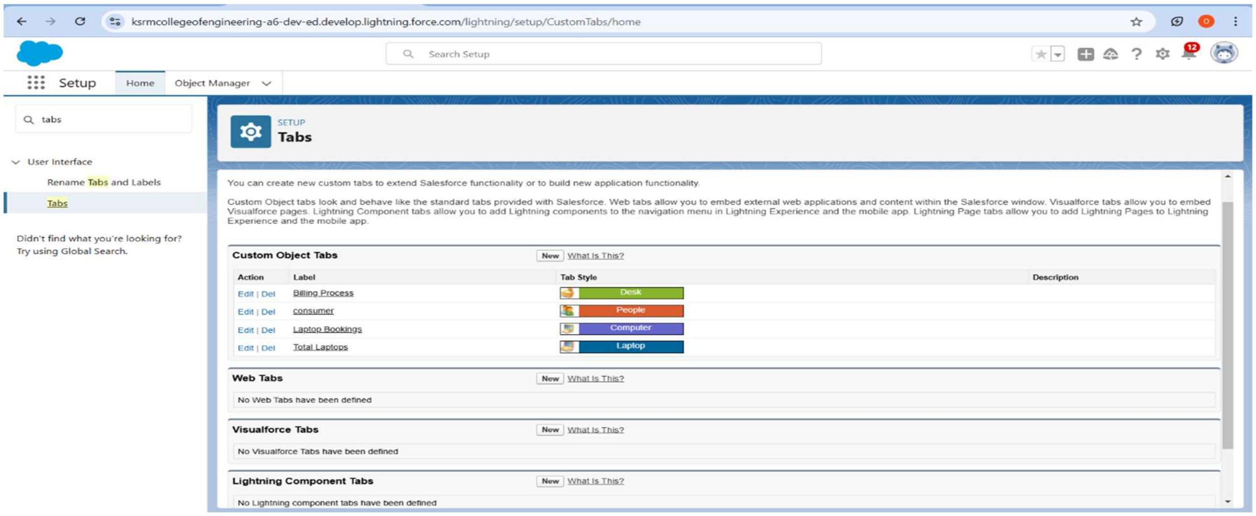


Create the custom tabs:

Whatever the Custom Objects we create that objects we want to create the Custom tabs

To create a Tab:( )

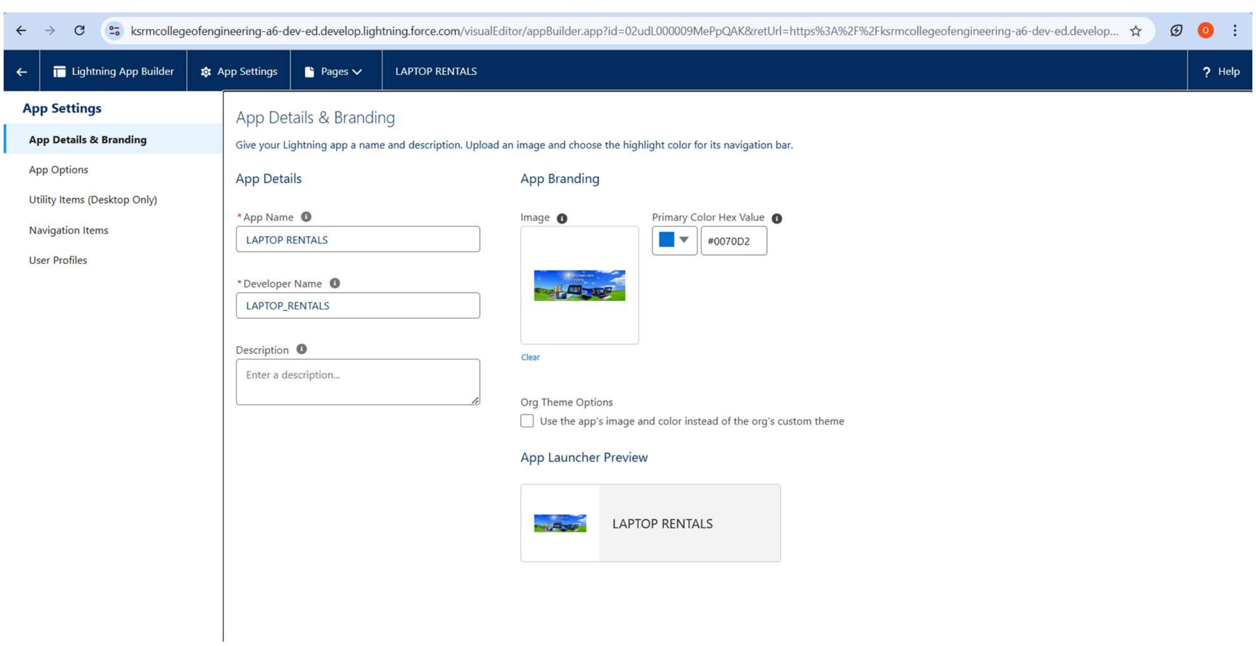
1. Go to setup page >> Type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)
2. Select Object (Total Laptops) >> Select the tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) uncheck the include tab.
3. Make sure that the Append tab to users' existing personal customizations is checked.
4. Click save.



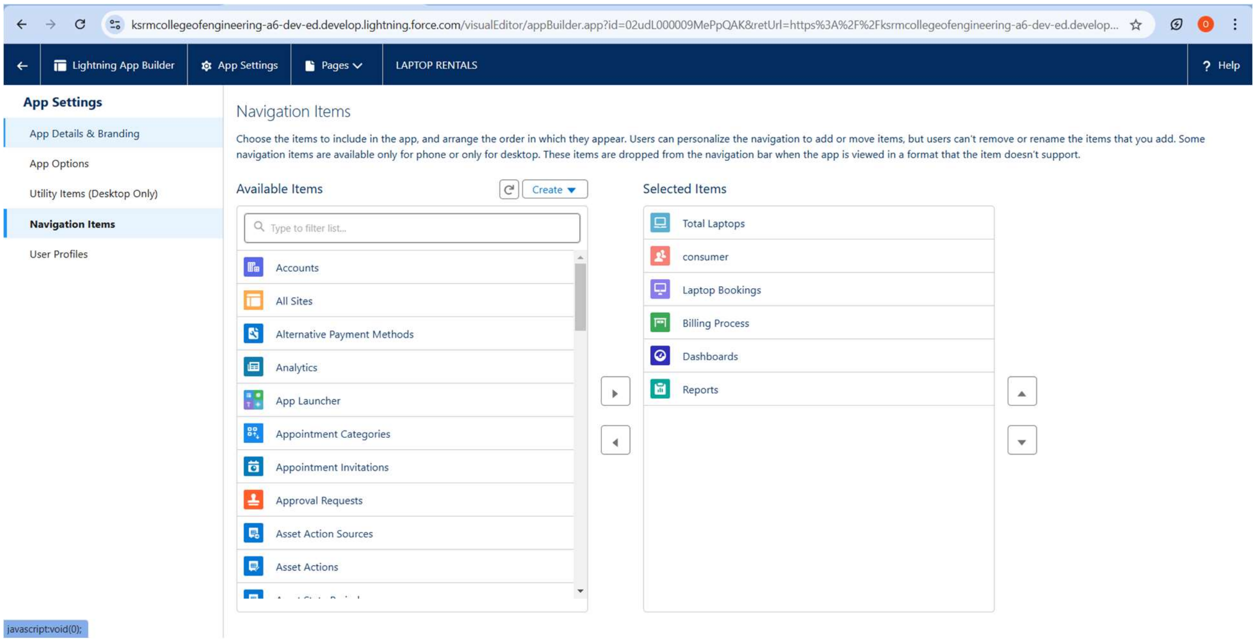
Create A Lightning App:

To create a lightning app page:

1. Go to setup page >> search “app manager” in quick find >> select “app manager” >> click on New lightning App.
2. Fill the app name in app details as LAPTOP RENTALS >>Next >> (App option page) keep it as default >> Next >> (Utility Items) keep it as default >> Next.
3. Upload a Photo that is related to your app.
4. To Add Navigation Items.



5. Select the items (Total Laptops, consumer, Laptop Booking, Billing Process) from the search bar and move it using the arrow button >> Next.

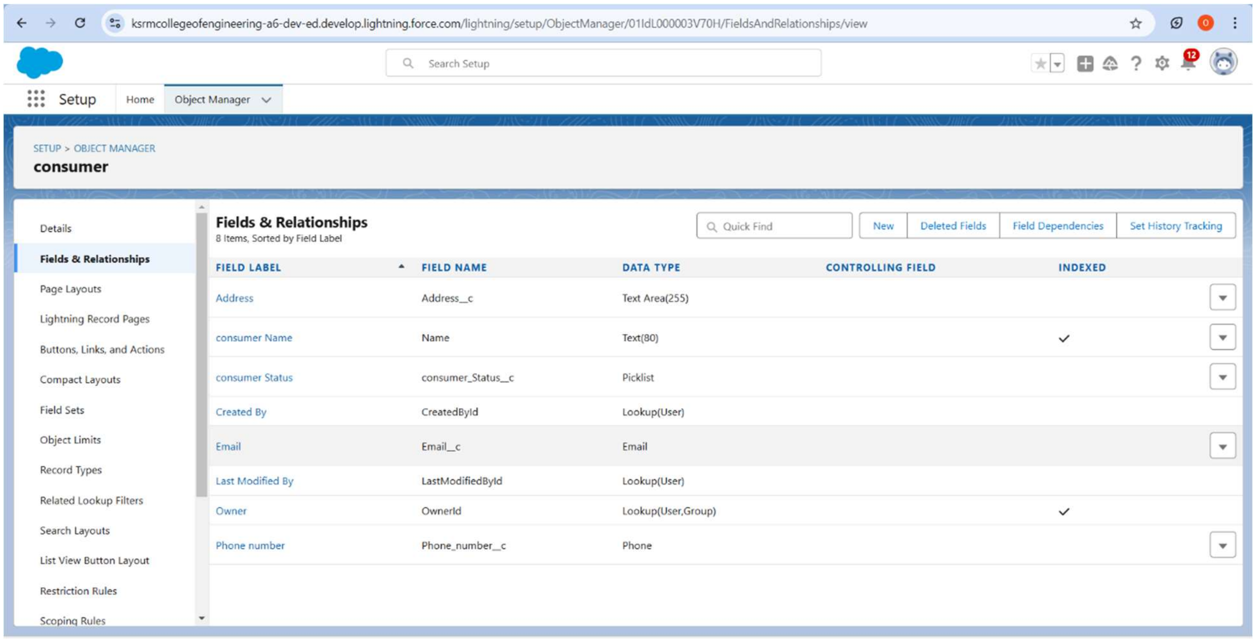


Creating the field in consumer object

To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(consumer) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data Type as a “Phone”
4. Click on next
5. Fill the Above as following:
   - Field Label: Phone number
   - Field Name : gets auto generated
   - Click the required option checkbox.
   - Click on Next >> Next >> Save and new.

Repeat the same steps we create the fields of Email, Adddress, consumer Status.



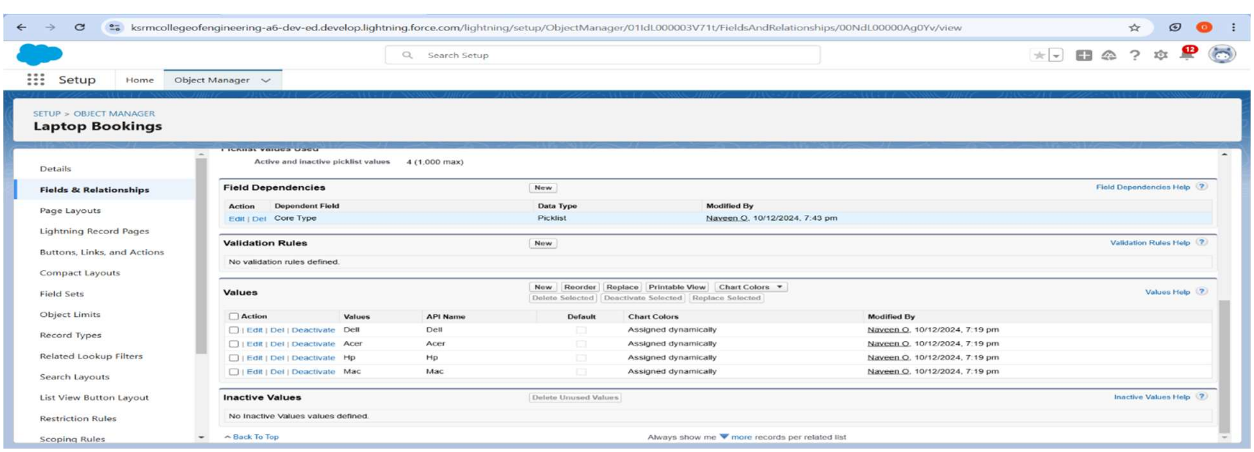
Creating the field in Laptops Bookings object:

1. To create fields in an object:

   1. Go to setup >> click on Object Manager >> type object name(Laptop Booking) in the search bar >> click on the object.
   2. Now click on “Fields & Relationships” >> New
   3. Select Data Type as a “Picklist”
   4. Label: Laptop Names
   5. Picklist values are: -1. Dell 2. Acer 3. Hp 4. Mac

   6.Select required

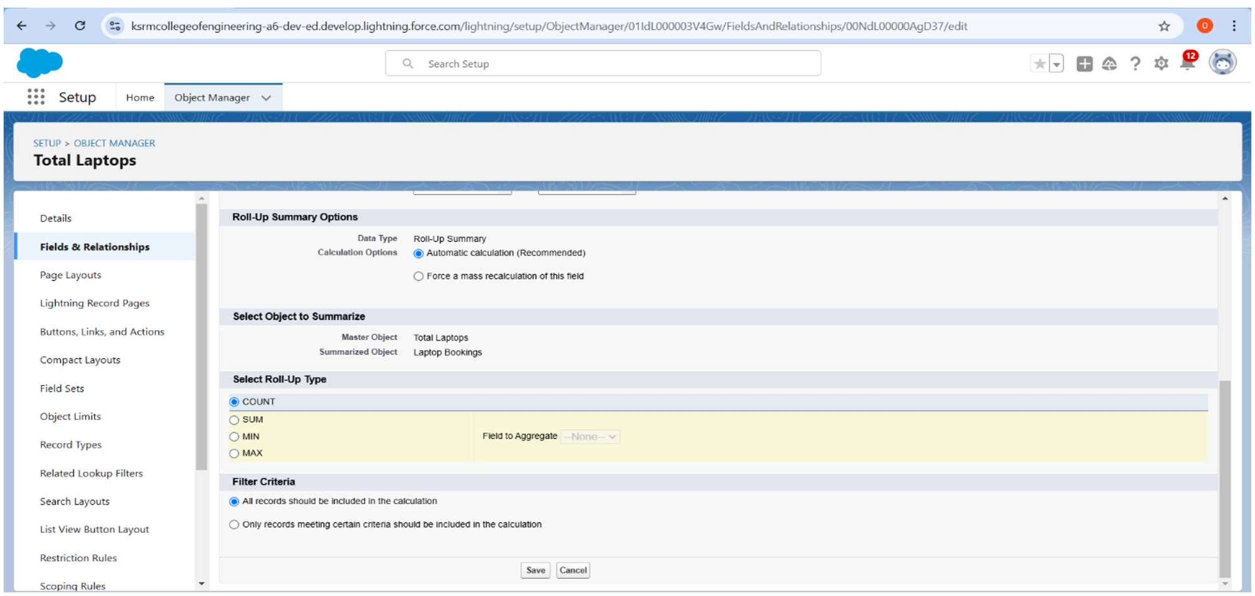
   7. Click on Next >> Next >> Save and new



To Create a Fields & Relationship to an Laptop Booking and Total Laptops Objects:

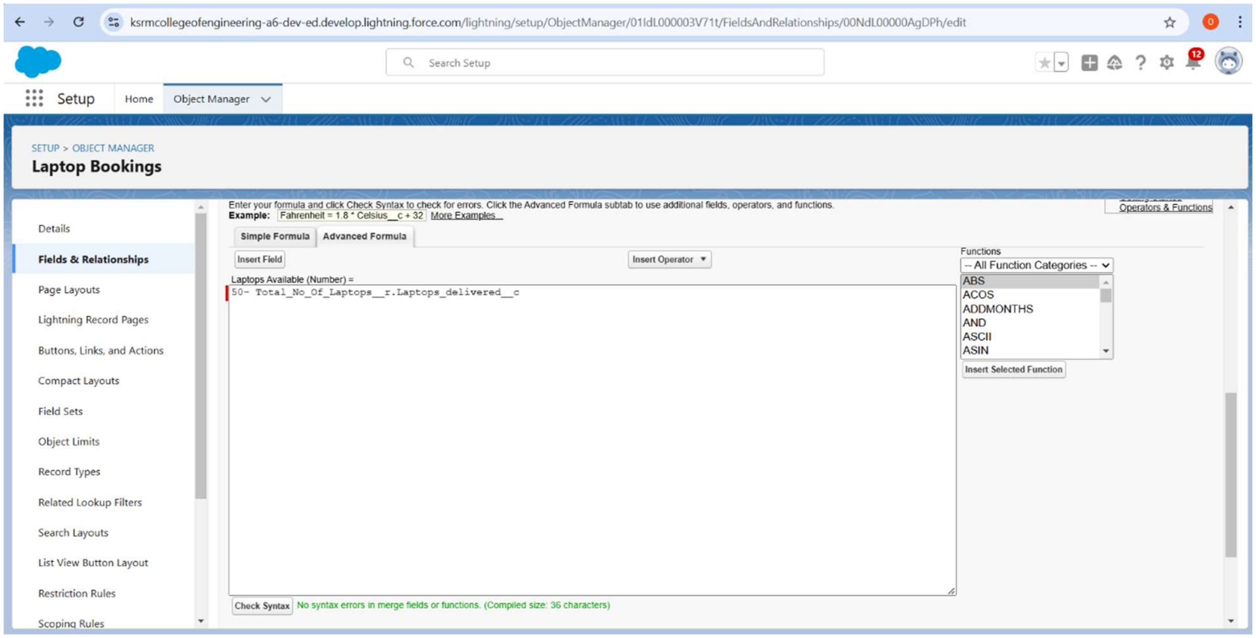
To Create a Rollup Summary Field in “Total Laptops Object”

1. After Creating the Master-Detail Relationship Than Only you can create the Rollup Summary
2. Go to setup >> click on Object Manager >> type object name (Total Laptops) in the search bar >> click on the object.
3. Now click on “Fields & Relationships” >> New
4. Select Data type as a “Roll-up Summary” and Click on Next
5. Field Label: Laptops delivered



To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Laptop Booking) in the search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Formula” and Click on Next
4. Field Label: Laptops Available
5. 50 - Total_no_of_laptops__r.Laptops_delivered__c ” and Check Syntax



API Name is ‘Laptops Available__c’

Click on Next >> Next >> Save and new

To create fields in an object:

1.Go to setup >> click on Object Manager >> type object name (Laptop Booking) in the

2. search bar >> click on the object.

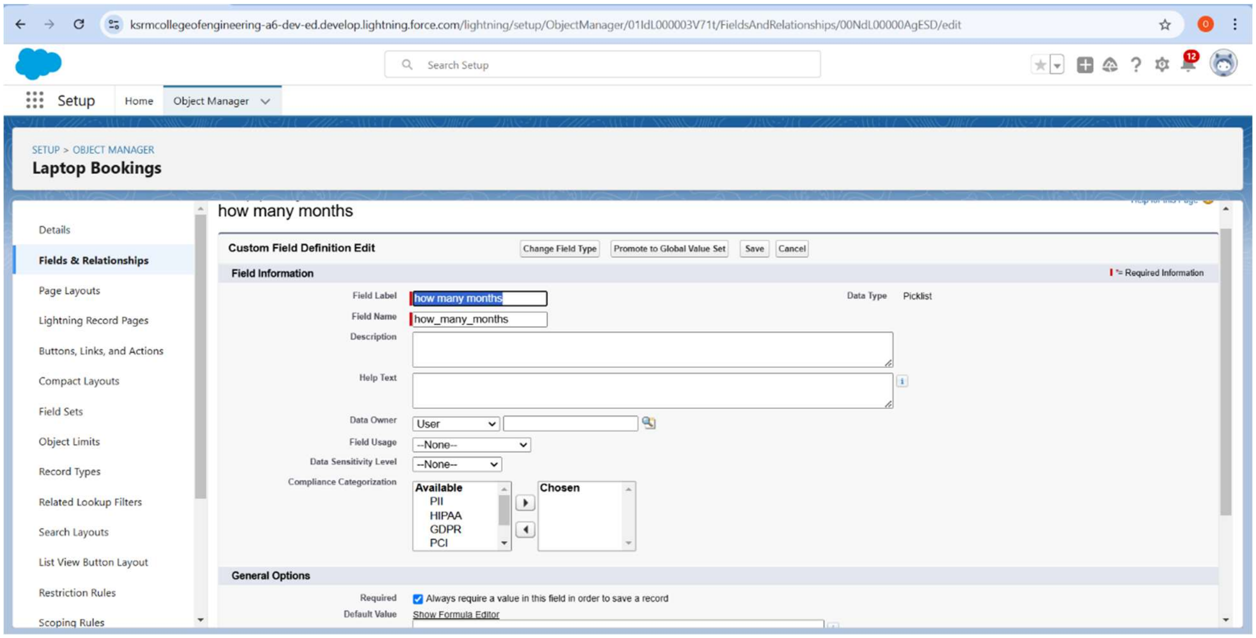
3.Now click on “Fields & Relationships” >>New

4.Select Data Type as a “picklist” and Label: how many months

5.picklist values are 1,2,3,4,5

6.Click and save it.

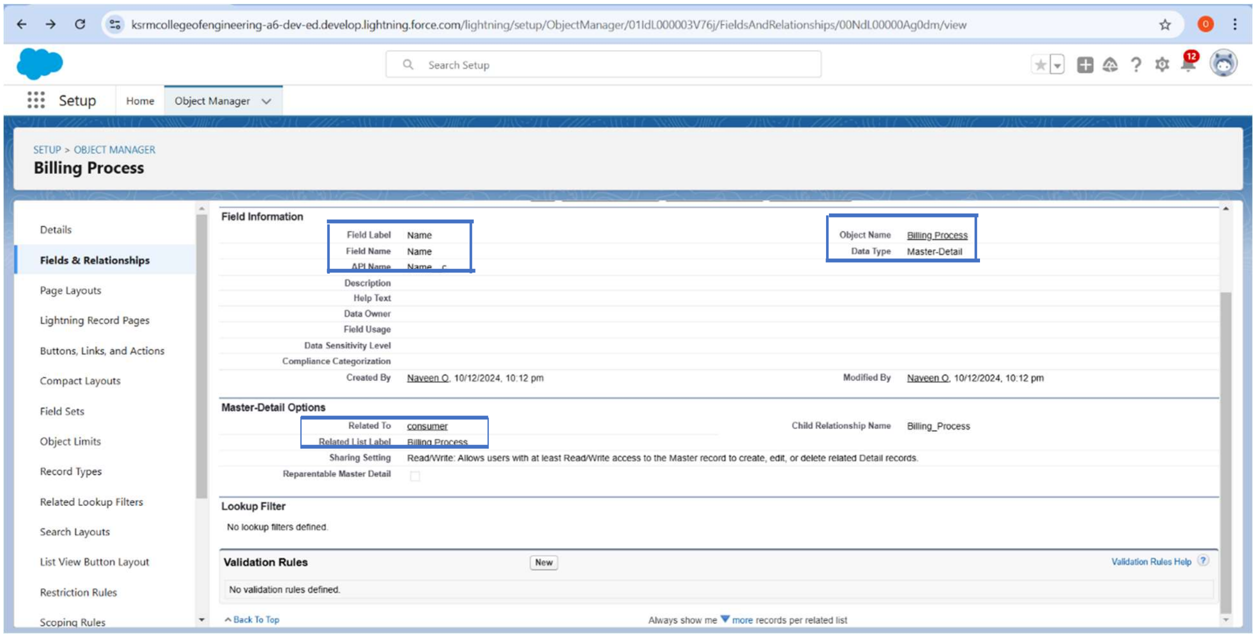
7.This API Name is how_many_months__c



Creation of Fields & Relationship for Billing Process Object:

. To create fields & relationship to an object:

1. Go to setup >> click on Object Manager >> type object name(Billing Process) in the search bar >> click on the object.
2. Now click on "Fields & Relationships" >> New
3. Select Data Type as a "Master-detail Relationship"
4. Click on Next
5. Click on the Related to drop down and select the consumer object and click on Next



Change the Field Label: Name

To create another fields & relationship to an object:

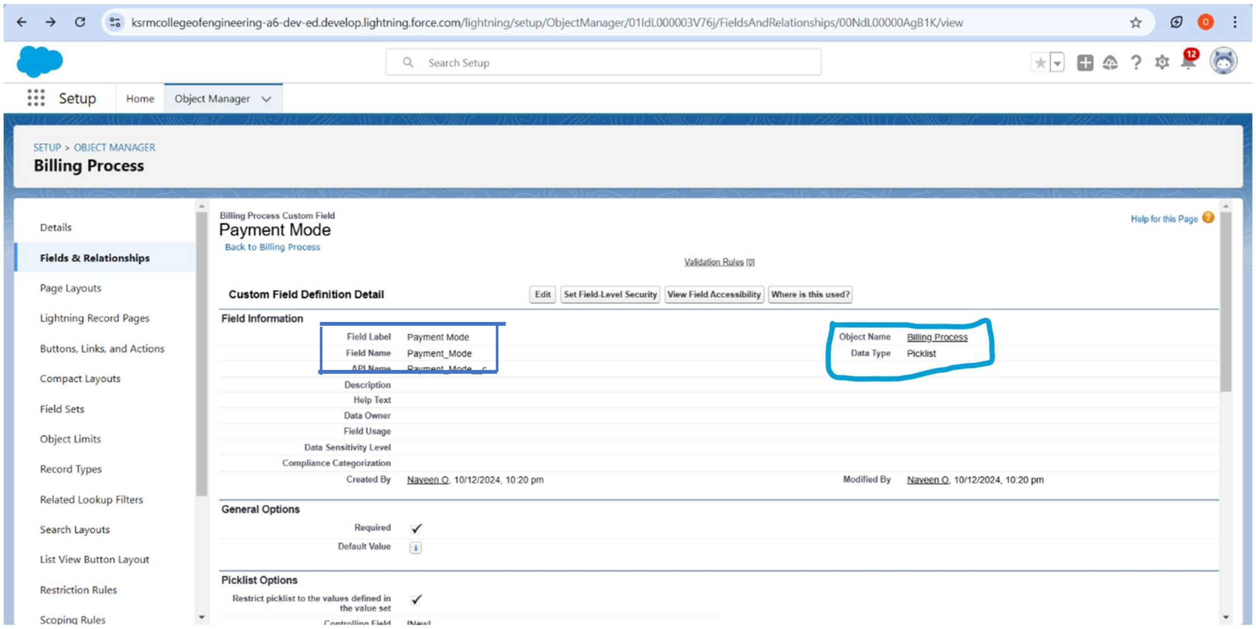
1. Now click on “Fields & Relationships” >> New
2. Select Data Type as a “Lookup Relationship”
3. Click on Next
4. Click on the Related to drop down and Select the Laptop Booking object and click on Next

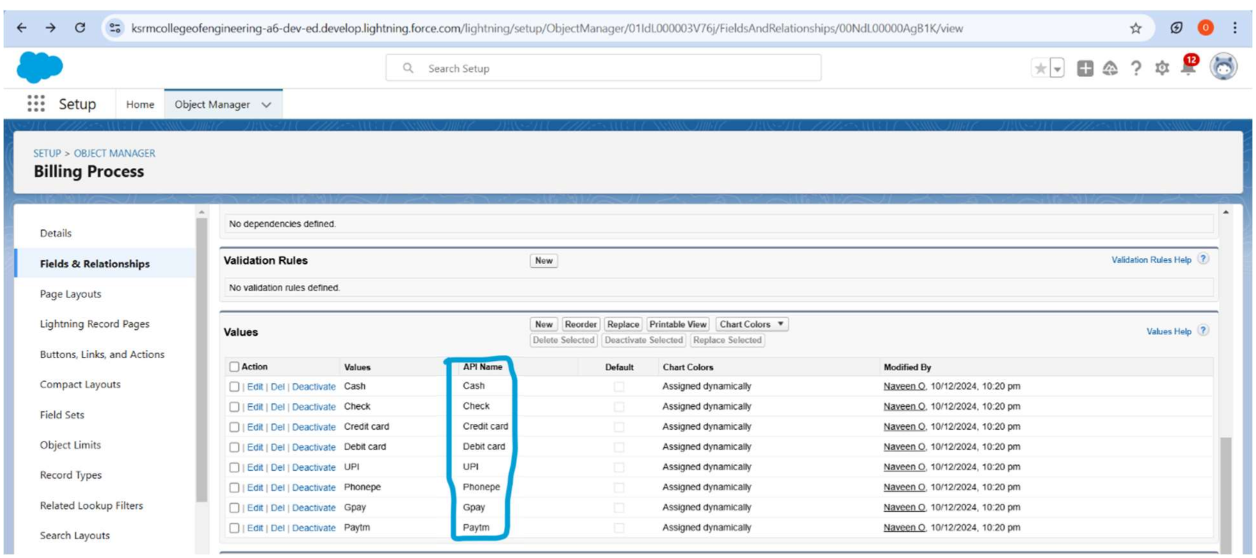
3. Creation of another fields for the billing process object

To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name (Billing Process) in the search bar >> click on the object.
2. Select Data Type as a “Picklist”
3. Field Label: Payment Mode
4. Value >> Select enter values with each value separated by a new line
   - Cash
   - Check
   - Credit card
   - Debit card
   - UPI

- Phonepe
- Gpay
- Paytm



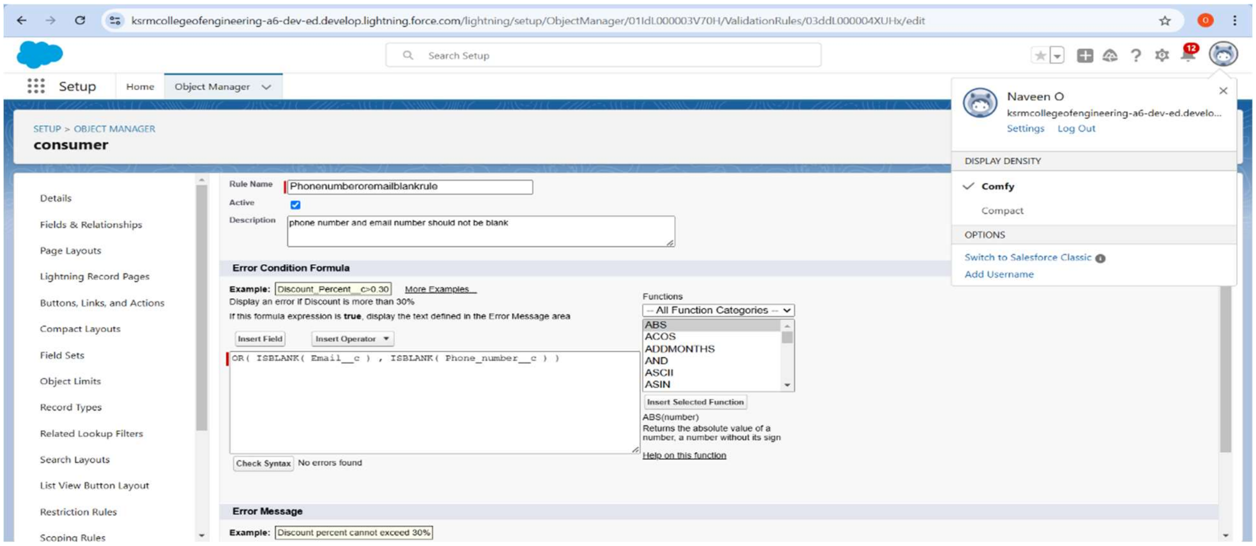


Validation rules:

Validation rules are applied when a user tries to save a record and are used to check if the data meets specified criteria. If the criteria are not met, the validation rule triggers an error message and prevents the user from saving the record until the issues are resolved.

Creating the validation rule for phone number field in consumer object:

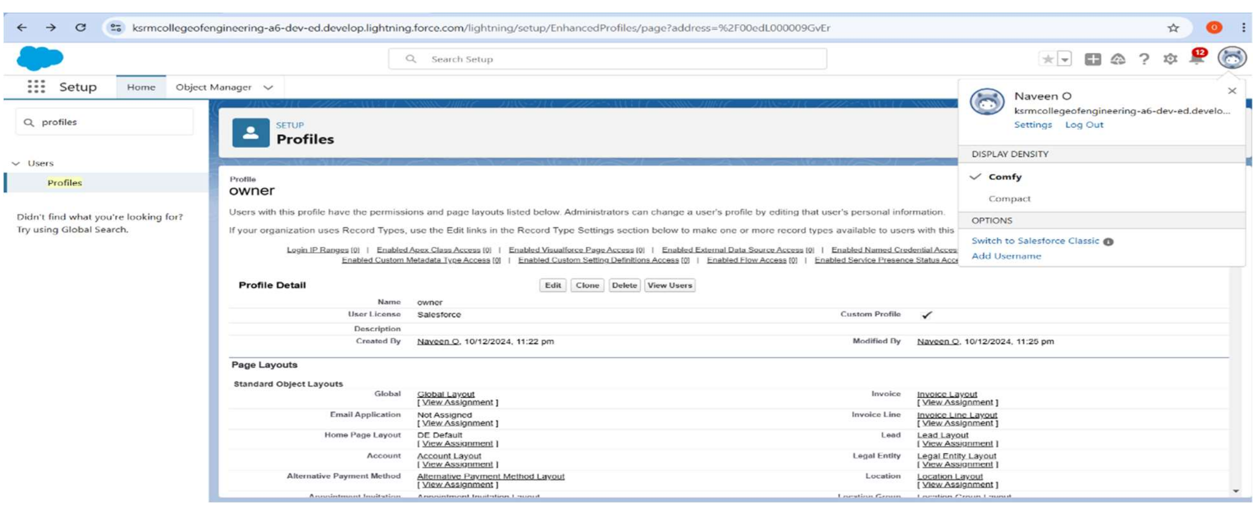
1. Enter the Rule name as “Phonenumberoremailblankrule ”.
2. Enter the description as “phone number and email number should not be blank”.
3. Enter the formula as “OR(ISBLANK(phone_number__c) , ISBLANK(email__c))” and check the syntax.

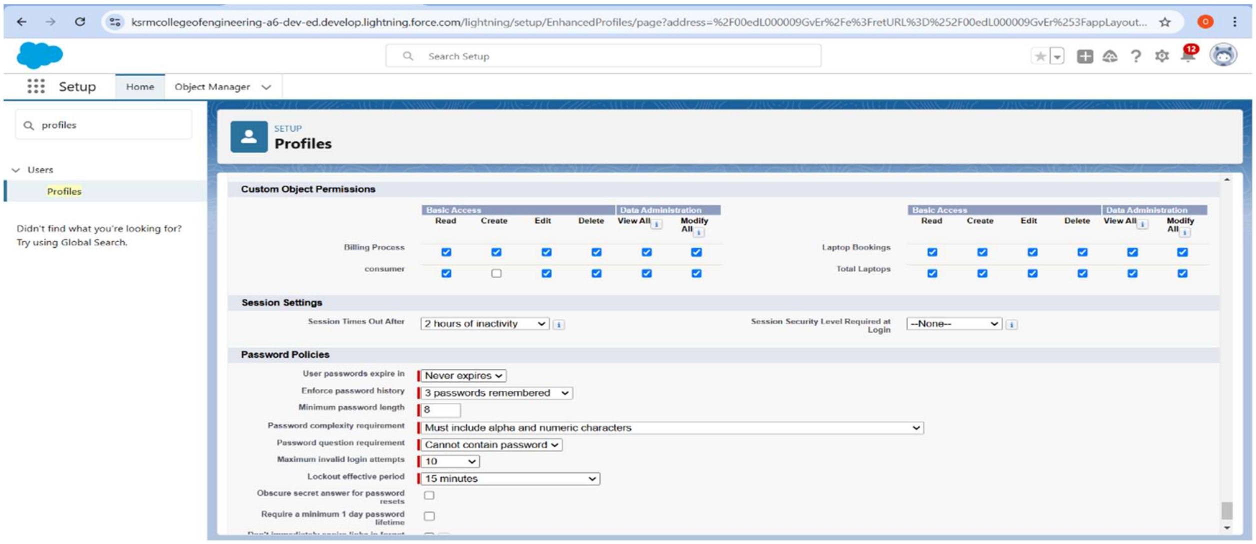


Profiles:

A profile is a group/collection of settings and permissions that define what a user can do in salesforce. Profile controls “Object permissions, Field permissions, User permissions, Tab settings, App settings, Apex class access, Visualforce page access, Page layouts, Record Types, Login hours & Login IP ranges.

To create the profiles for (Owner Profile & Agent profile)



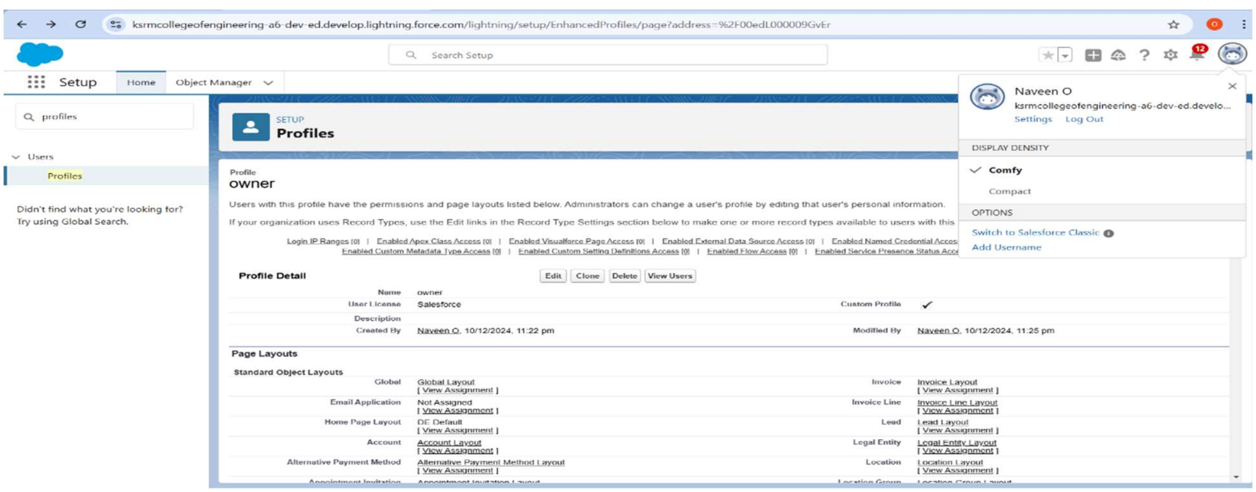


Roles and Hierarchy:

A role in Salesforce defines a user's visibility access at the record level. Roles may be used to specify the types of access that people in your Salesforce organization can have to data. Simply put, it describes what a user could see within the Salesforce organization.

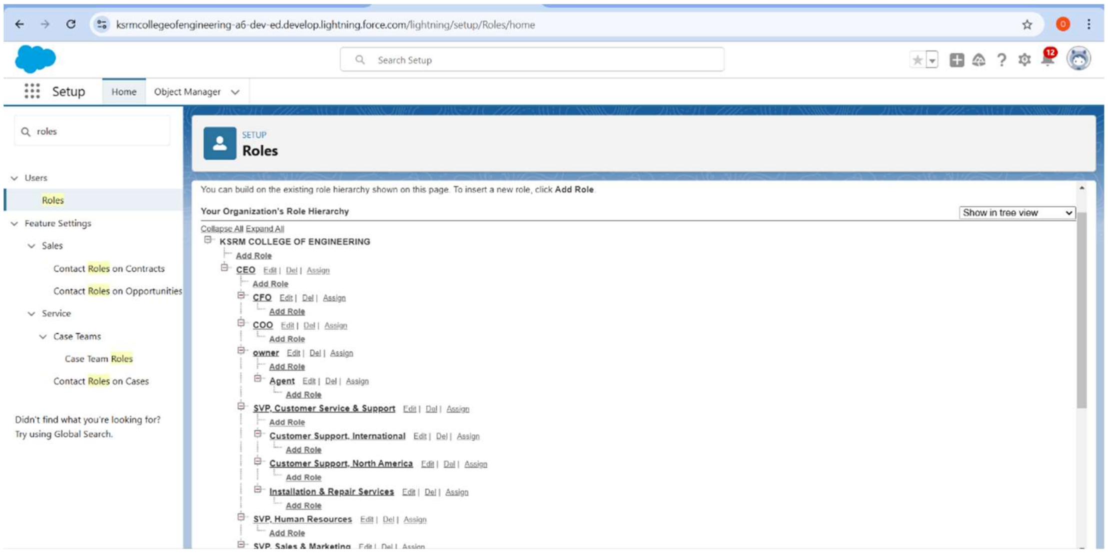
Creating owner Role:

1. Give Label as "owner" and Role name gets auto populated. Then click on Save.



Creating another two roles under Owner

1. Go to quick find - Search for Roles - click on set up roles.
2. Click plus on CEO role, and click add role under owner.

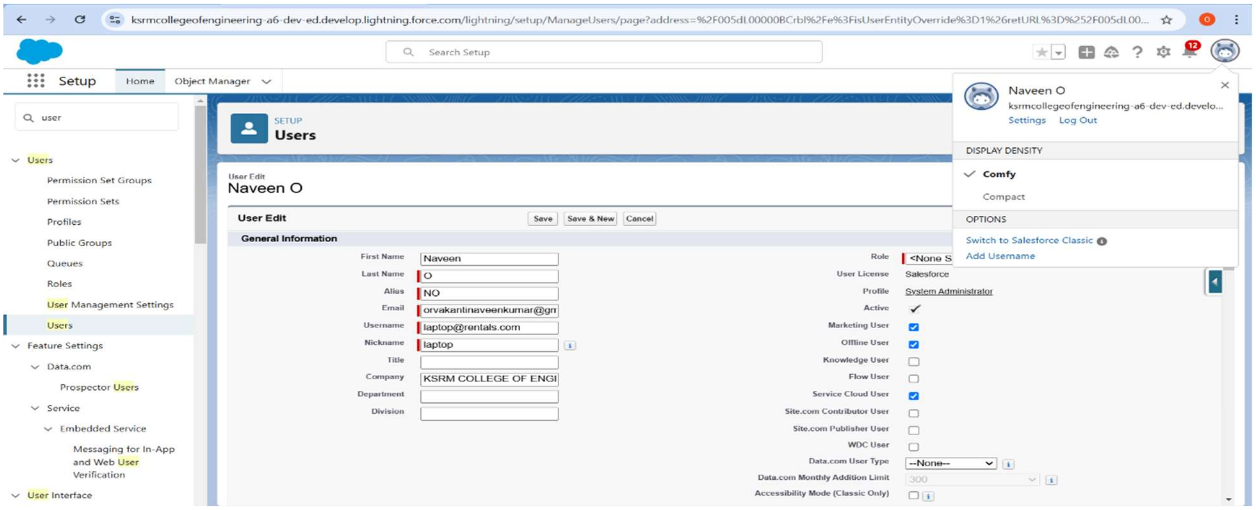


Users:

A user is anyone who logs in to Salesforce. Users are employees at your company, such as sales reps, managers, and IT specialists, who need access to the company's records. Every user in Salesforce has a user account. The user account identifies the user, and the user account settings determine what features and records the user can access.

Create User:

1. Go to setup - type users in quick find box - select users -click New user.
2. Fill in the fields
3. First Name: Naveen
4. Last Name: O
5. Alias: NO
6. Email id: orvakantinaveenkumar@gmail.com
7. Username: laptop@rentals.com
8. Nick Name: laptop
9. Role: owner
10. User license: Salesforce
11. Profiles: owner.



Flows:

In Salesforce, a flow is a powerful tool that allows you to automate business processes, collect and update data, and guide users through a series of screens or steps. Flows are built using a visual interface and can be created without any coding knowledge.

Autolaunched Flows: These are flows that are triggered by events, such as when a record is created or updated.

Flow Builder: Flow Builder is the visual interface used to create flows. It allows you to design flows by adding elements, like screens, logic, and actions, using a drag-and-drop approach.

Flow Templates: Salesforce provides a library of pre-built flow templates that you can use as a starting point for your own flows.

Scheduled Flows: These are flows that you can schedule to run at specific times or intervals.

Flow Elements: Flow Builder offers various elements that you can use to create flows, such as variables, decisions, loops, and more

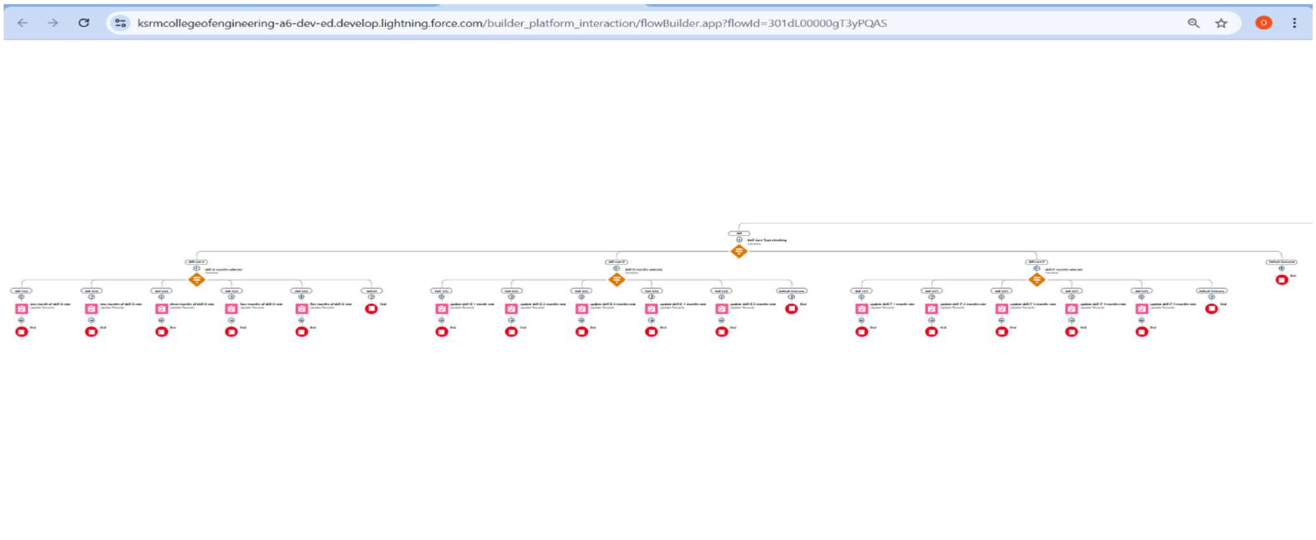
Subflows: Subflows are reusable flow elements that you can incorporate into multiple flows, making it easier to manage and maintain complex processes.

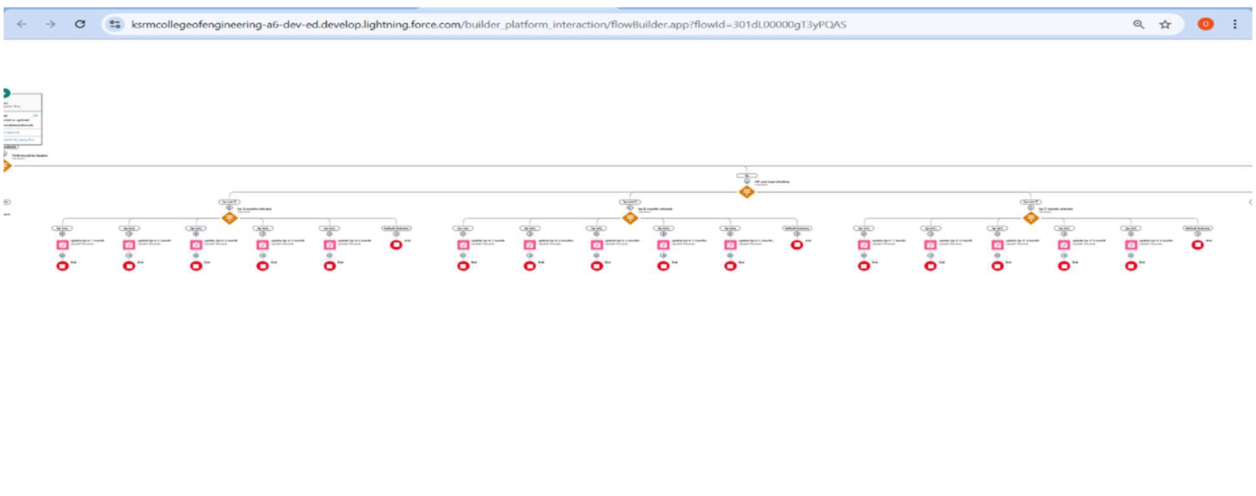
Record-Triggered Flows: These are flows that are triggered when records meet specified criteria. They are often used for automating record updates and related actions.

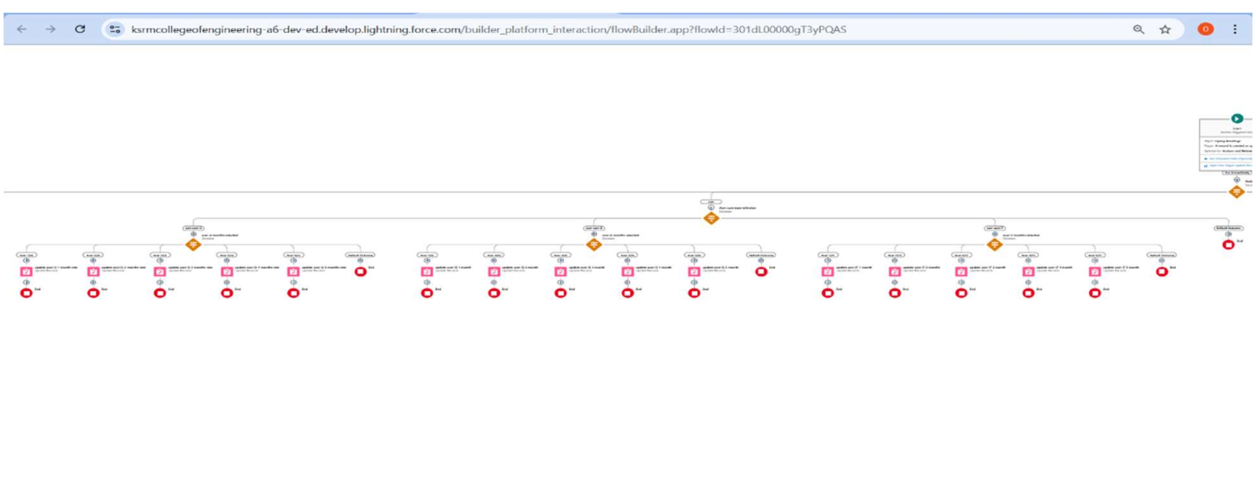
Why do we need to create a flow:

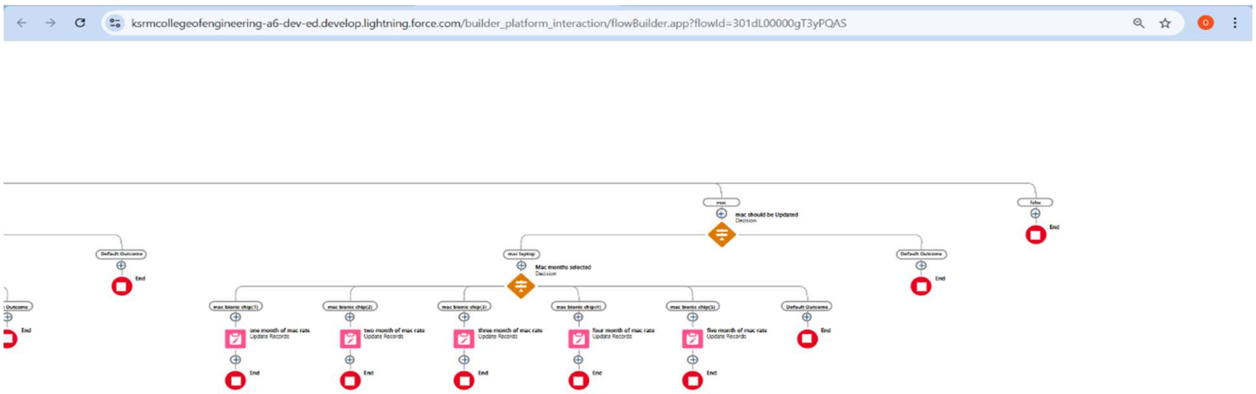
To get the Amount Field automatic by the selection of laptop types the Amount is generated Automatically in the amount field.

Create a Flow on dell laptop, acer laptop, hp laptop, mac laptop:



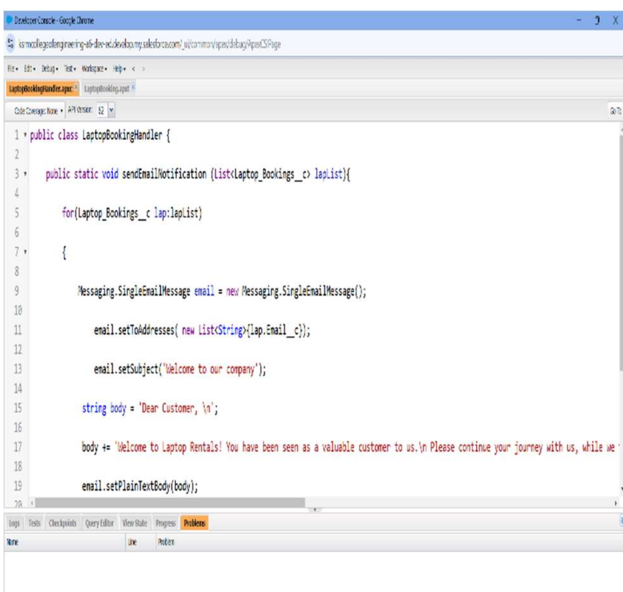


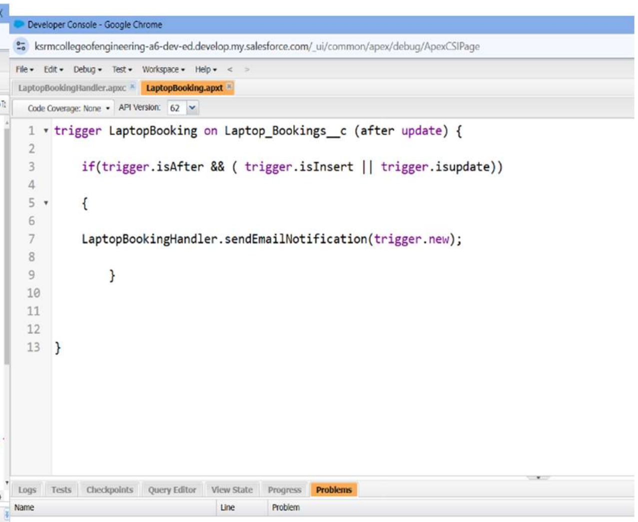




APEX:

It is as similar as java i.e, it also supports OOP(Object oriented programming) like Classes, objects, methods.



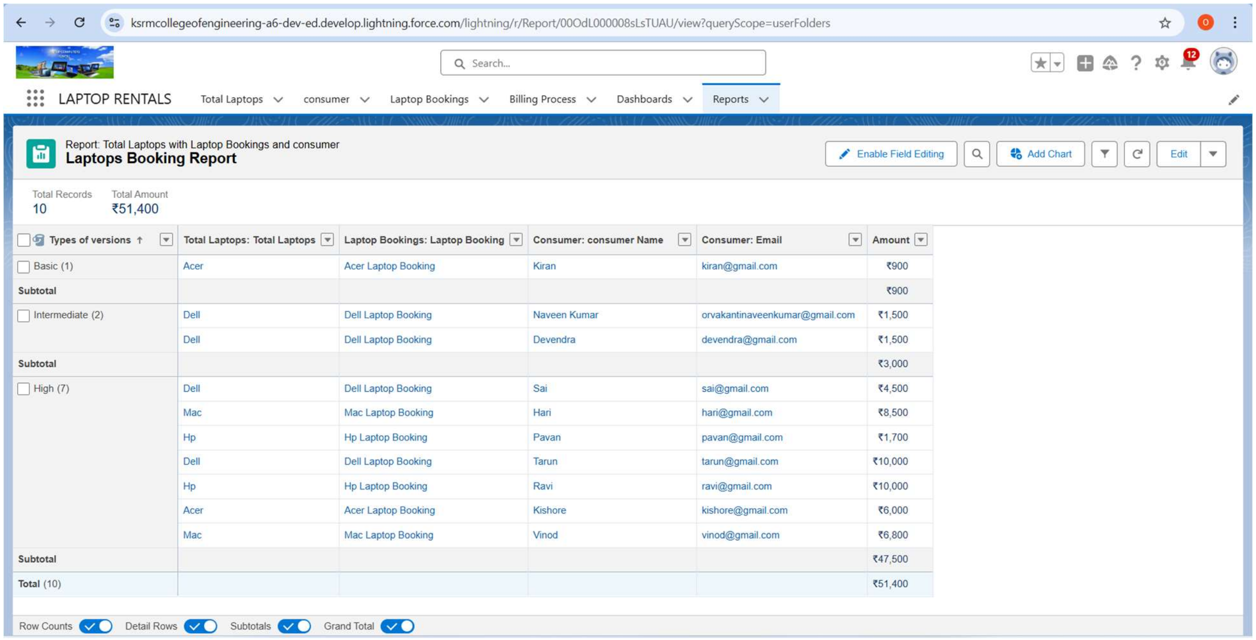


A trigger is a set of Apex code that runs before or after DML(Data Manipulation Language) events. A DML event could be a variety of data processing tasks that include the standard insert, update, and delete commands.

Reports:

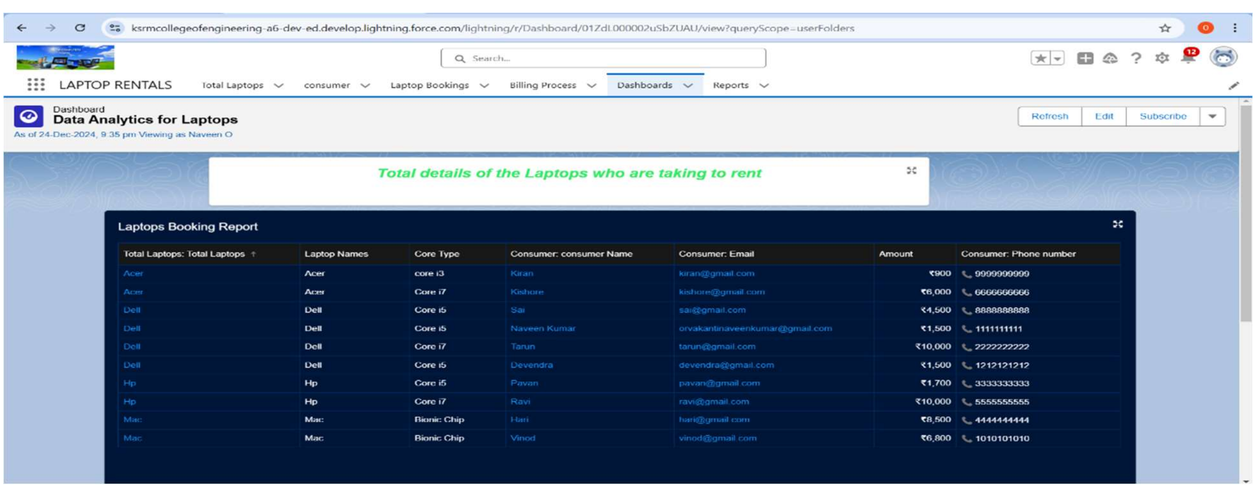
Reports give you access to your Salesforce data. You can examine your Salesforce data in almost infinite combinations, display it in easy-to-understand formats, and share the resulting insights with others. Before building, reading, and sharing reports, review these reporting basics.

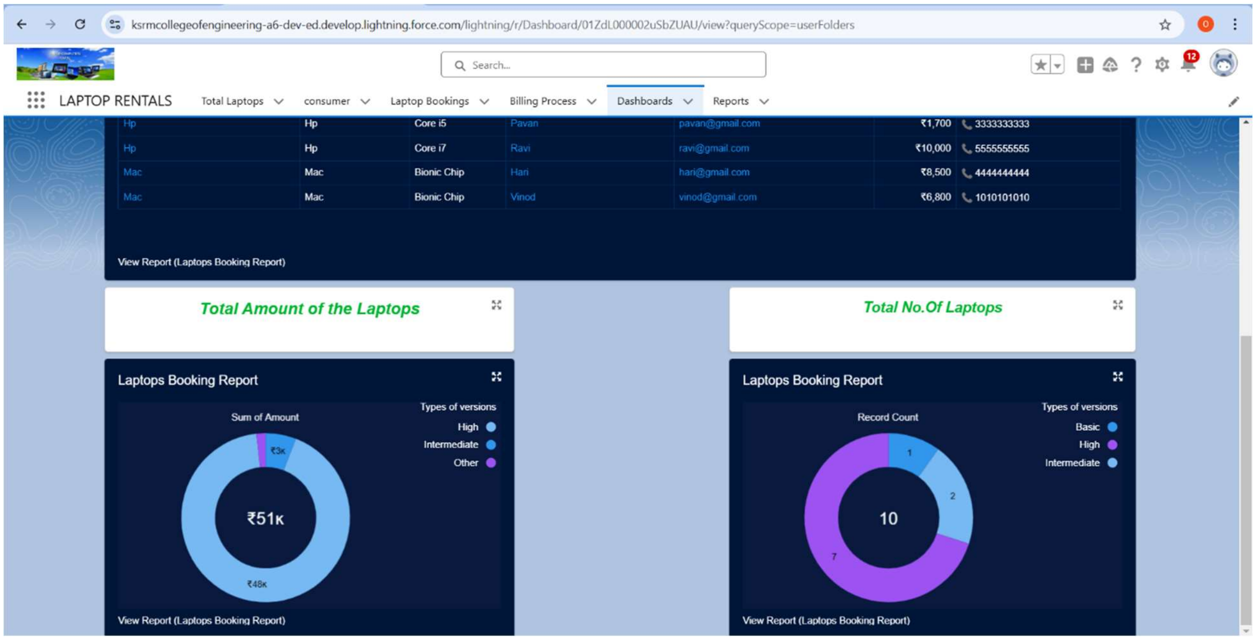
In the Reports we can take 10 records of the customers:



Dashboards

Dashboards help you visually understand changing business conditions so you can make decisions based on the real-time data you've gathered with reports. Use dashboards to help users identify trends, sort out quantities, and measure the impact of their activities. Before building, reading, and sharing dashboards, review these dashboard basics.





In the Dashboard we can create different type Reports they are Laptops who are taking to rent,Total Amount of the Laptops, and Total No.Of Laptops are created in the dashboard.

Conclusion:

In conclusion, the decision of whether it's worth it to rent a laptop depends on various factors, including your specific needs, budget, and duration of use. While renting offers unparalleled convenience, cost-effectiveness, and access to the latest technology, it may not be the ideal choice for everyone. By weighing the pros and cons outlined in this guide and conducting thorough research, you can make an informed decision that aligns with your individual requirements.