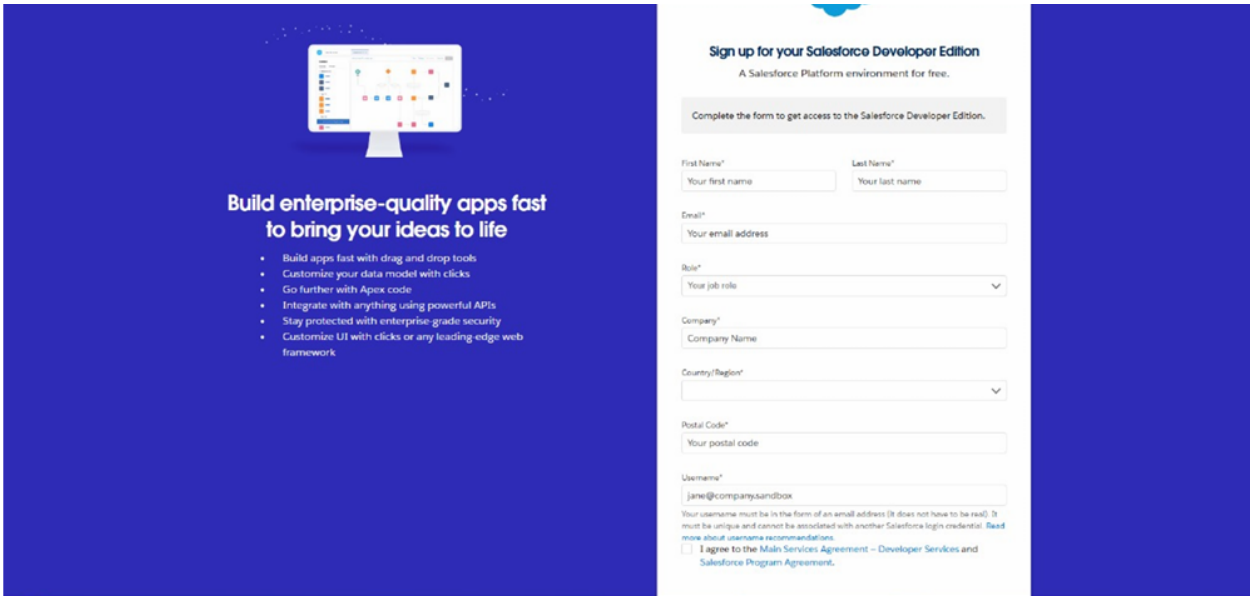
A CRM APPLICATION FOR LAPTOP RENTALS

CRM Application on Laptop rentals is about delivering the items to the customers by rental purpose. It leverages the power of customer relationship management (CRM) to enhance customer experiences, optimize store operations, and improve overall efficiency. Additionally to these, we also need to do an effective CRM i.e via communicating through email with the potential customers identified.

Salesforce:

Salesforce is your customer success platform, designed to help you sell, service, market, analyze, and connect with your customers. Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, and store your data securely in the cloud.



Object Creation:

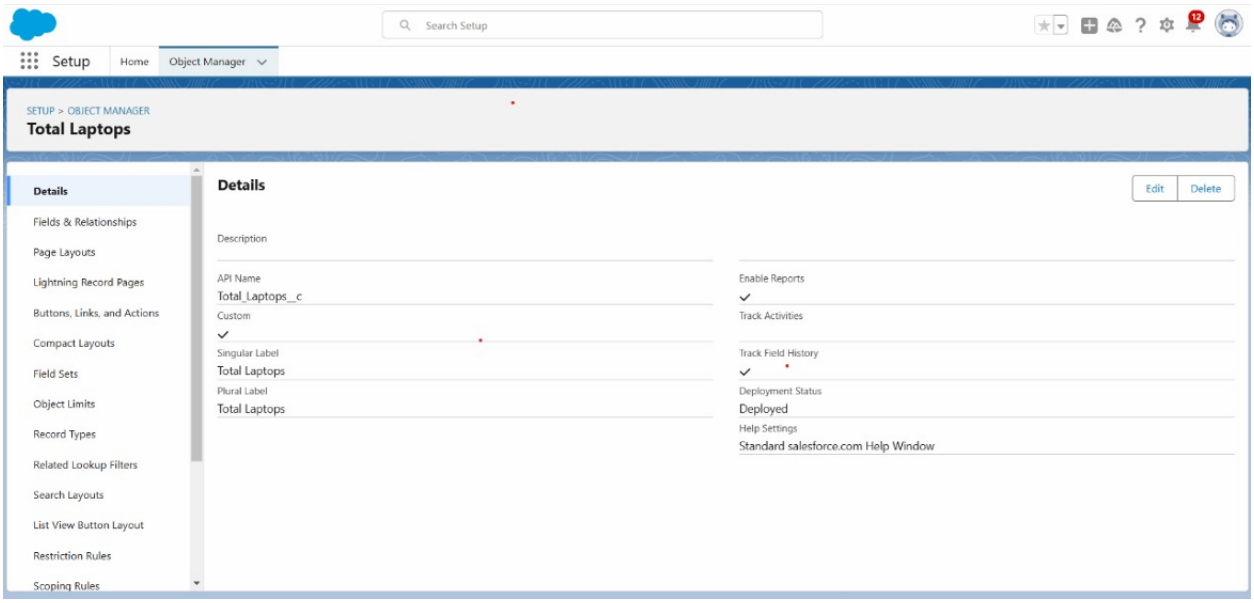
What Is an Object? Salesforce objects are database tables that permit you to store data that is specific to an organization. What are the types of Salesforce objects Salesforce objects are of two types:

1. Standard Objects: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.

2. Custom Objects: Custom objects are those objects that are created by users. They supply information that is unique and essential to their organization. They are the heart of any application and provide a structure for sharing data.

Create Total Laptops Object :

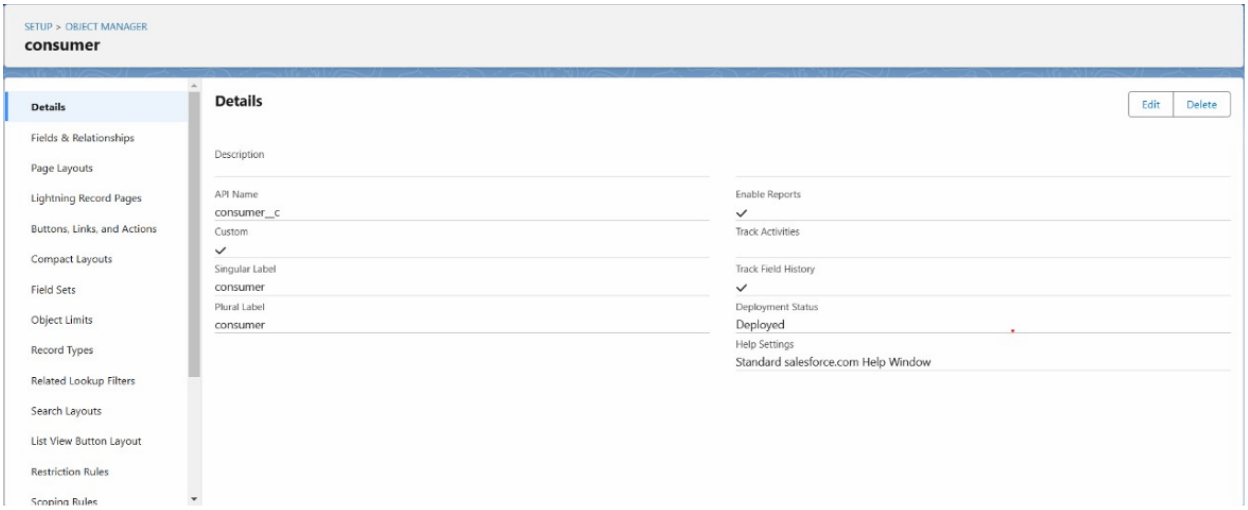
➤ From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
➤ Enter the label name>> Total Laptops
➤ Plural label name>> Total Laptops
➤ Enter Record Name Label and Format
Record Name >>Total Laptops
Data Type >> Text
➤ Click on Allow reports,Allow search and Track Field History.
➤ Allow search >> Save.



Create consumer Object :

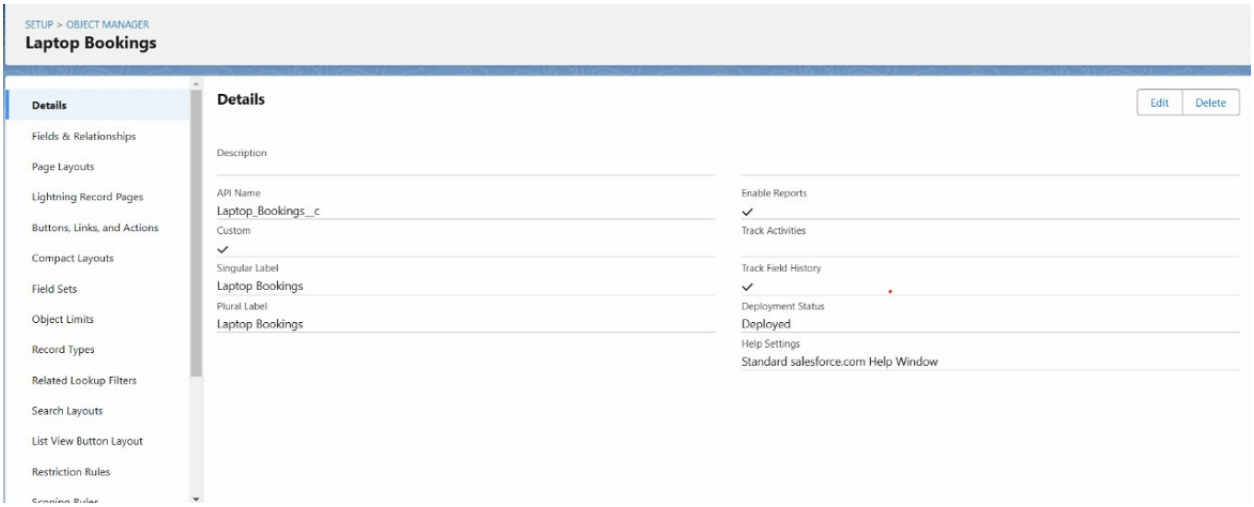
➤ From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
➤ Enter the label name >> consumer
➤ Plural label name >> consumer
➤ Enter Record Name Label and Format Record Name >> consumer_name Data Type >> Name

➤ Click on Allow reports,Allow search and Track Field History,
➤ Allow search >> Save.



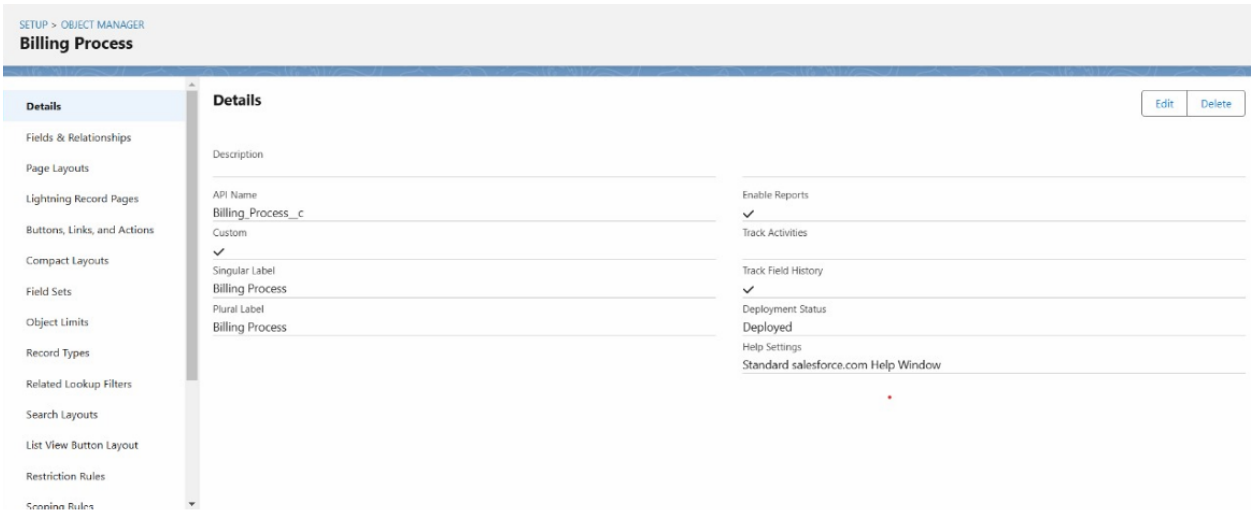
Create Laptop Bookings Object :

➤ From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
➤ Enter the label name >> Laptop Bookings
➤ Plural label name >> Laptop Bookings
➤ Enter Record Name Label and Format
Record Name >> Laptop Bookings
Data Type >> Name
➤ Click on Allow reports,Allow search and Track Field History.
➤ Allow search >> Save.



Create Billing Process Object :

➤ From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
➤ Enter the label name >> Billing Process
➤ Plural label name >> Billing Process
➤ Enter Record Name Label and Format Record Name >> Billing Process   Data Type >> Name
➤ Click on Allow reports,Allow search and Track Field History.
➤ Allow search >> Save.



Tabs

What is a tab : A tab is like a user interface that is used to build records for objects and to view the records in the objects.

Types of Tabs:

➤ **Custom Tabs:** Custom object tabs are the user interface for custom applications that you build in salesforce.com. They look and behave like standard salesforce.com tabs such as accounts, contacts, and opportunities.
➤ **Web Tabs:** Web Tabs are custom tabs that display web content or applications embedded in the salesforce.com window. Web tabs make it easier for your users to quickly access content and applications they frequently use without leaving the salesforce.com application.

➤ **Visual force Tabs:** Visual force Tabs are custom tabs that display a Visual force page. Visual force tabs look and behave like standard salesforce.com tabs such as accounts, contacts, and opportunities.
➤ **Lightning Component Tabs:** Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app.
➤ **Lightning Page Tabs:** Lightning Page Tabs let you add Lightning Pages to the mobile app navigation menu. Lightning Page tabs don't work like other custom tabs. Once created, they don't show up on the All Tabs page when you click the Plus icon that appears to the right of your current tabs. Lightning Page tabs also don't show up in the Available Tabs list when you customize the tabs for your apps.

Creating a Custom Tab:

To create a Tab:

➤ Go to setup page >> Type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)
➤ 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 .
➤ Make sure that the Append tab to users' existing personal customizations is checked.
➤ Click save.

The Lightning App:

An app is a collection of items that work together to serve a particular function. In Lightning Experience, Lightning apps give your users access to sets of objects, tabs, and other items all in one convenient bundle in the navigation bar. Lightning apps let you brand your apps with a custom color and logo. You can even include a utility bar and Lightning page tabs in your Lightning app. Members of your org can work more efficiently by easily switching between apps.

Create a Lightning App:

To create a lightning app page:

➤ Go to setup page >> search “app manager” in quick find >> select “app manager” >> click on New lightning App.
➤ 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.
➤ Upload a photo that is related to your app.
➤ To Add Navigation Items: Select the items (Total Laptops,consumer,Laptop Booking,Billing Process) from the search bar and move it using the arrow button >> Next.
➤ To Add User Profiles: Search profiles (System administrator) in the search bar >> click on the arrow button >> save & finish.

Fields:

When we talk about Salesforce, Fields represent the data stored in the columns of a relational database. It can also hold any valuable information that you require for a specific object. Hence, the overall searching, deletion, and editing of the records become simpler and quicker.
Types of Fields:
1. Standard Fields
2. Custom Fields
Standard Fields:
As the name suggests, the Standard Fields are the predefined fields in Salesforce that perform a standard task. The main point is that you can’t simply delete a Standard Field until it is a non-required standard field. Otherwise, users have the option to delete them at any point from the application freely. Moreover, we have some fields that you will find common in every Salesforce application. They are,
>>Created By
>>Owner
>> Last Modified
>> Field Made During object Creation

Custom Fields:

On the other side of the coin, Custom Fields are highly flexible, and users can change them according to requirements. Moreover, each organizer or company can use them if necessary. It means you need not always include them in the records, unlike Standard Fields. Hence, the final decision depends on the user, and he can add/remove Custom Fields of any given form.

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

To create another field 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 “Email” and Click on Next

Creating the field in Laptops Bookings object:

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. Picklist values are:-1.Dell 2. Acer 3.Hp 4.Mac
5. Select required
6. Click on Next >> Next >> Save and new

To Create a Fields & Relationship to an Laptop Booking Object:

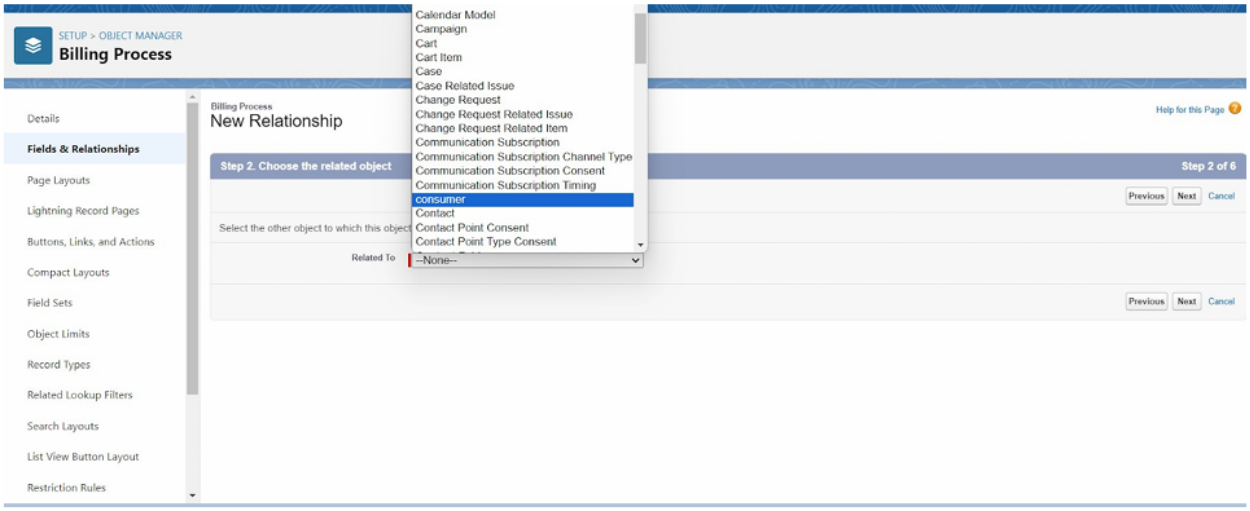
To create fields & relationships to an object:

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. Picklist values are:-1.core i3 2. Core i5 3. Core i7 .
5. Select required

6. Click on Next >> Next >> Save and new
7. Go to setup >> click on Object Manager >> type object name(Laptop Booking) in the search bar >> click on the object.
8. click field dependency and next
9. Click the include value for dell-core i3,i5,i7 and for acer i3,i4,i5 and for hp i3,i4,i5 and also for mac bionic chip include the values for it.

To Create a Fields & Relationship for Billing Process 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
6. Change the Field Label: Name
7. click on Next >> Next >> Save and new.



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. Now click on “Fields & Relationships” >> New
3. Select Data Type as a “Picklist”
4. Fill the Above as following:

Field Label: Payment Mode

Value >> Select enter values with each value separated by a new line

Cash

Check

Credit card

Debit card

UPI

Phonepe

Gpay

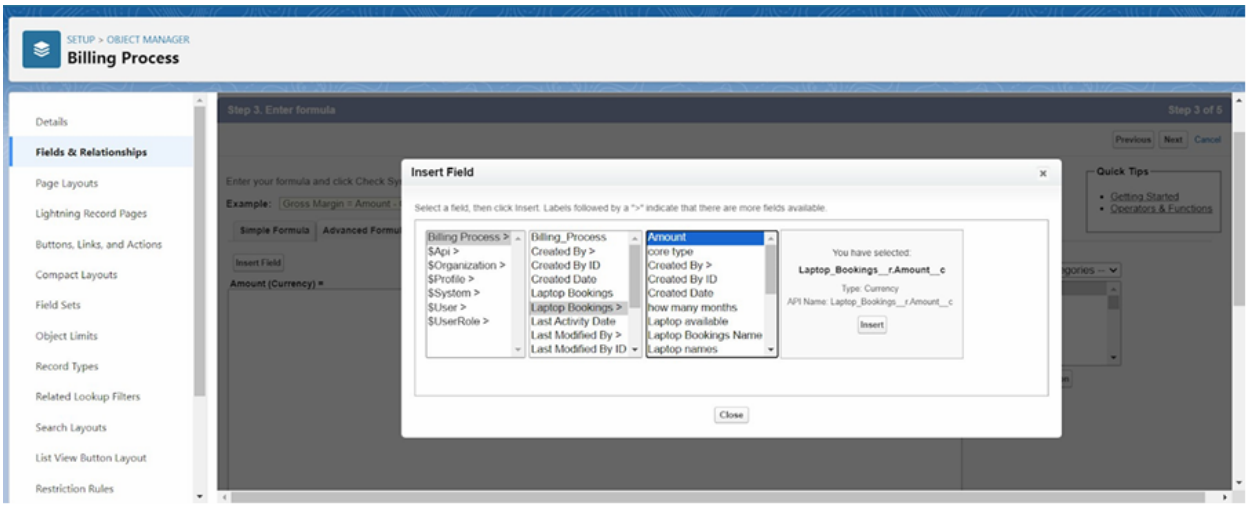
Paytm

Select required

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

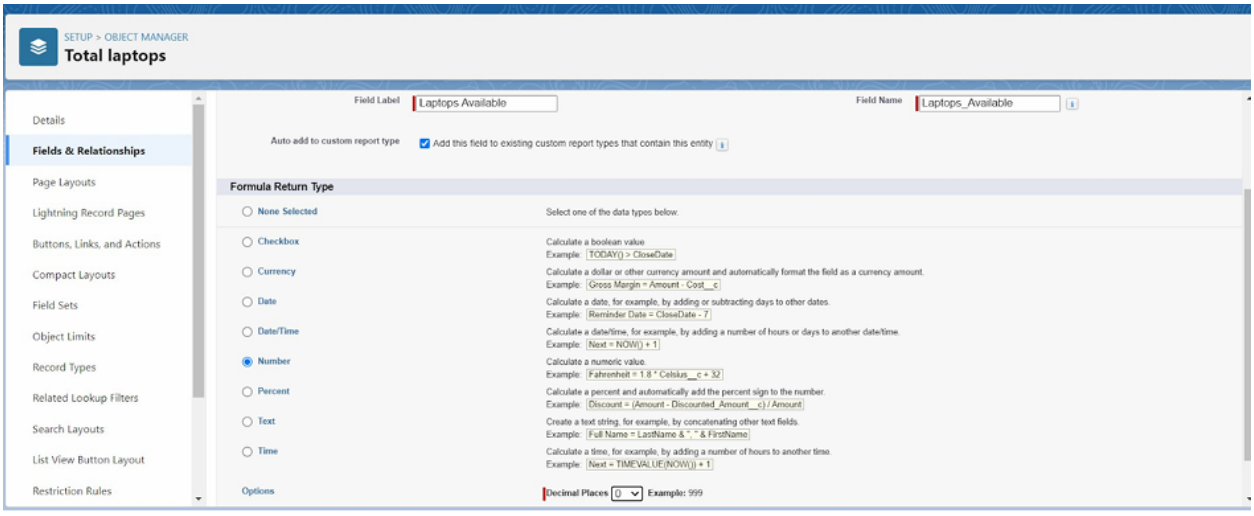
Create a Cross object formula Field in billing process Object:

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 “Formula”
4. Click on Next
5. Enter the Field label: Amount, the Field name gets auto generated, and click on Next.(Formula return type Number).
6. In the Advanced Formula Click on the Insert field in the popup Screen Select the Billing Process and in the second drop down select the Laptop Booking and in the three drop down select the Amount field and click on Insert.
7. “ Laptop_Booking__r.Amount__c ”.
8. Click on the Check syntax: No syntax errors in merge fields.



Creating the field in Total Laptops object:

1. Go to setup >> click on Object Manager >> type object name(Total Laptops) in 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. Fill the Above as following:
5. Field Label: Laptops Available
6. Field Name : It’s gets auto generated
7. Select the Formula Return Type as “Number”
8. Select the Decimal places as “0” and Click on Next.



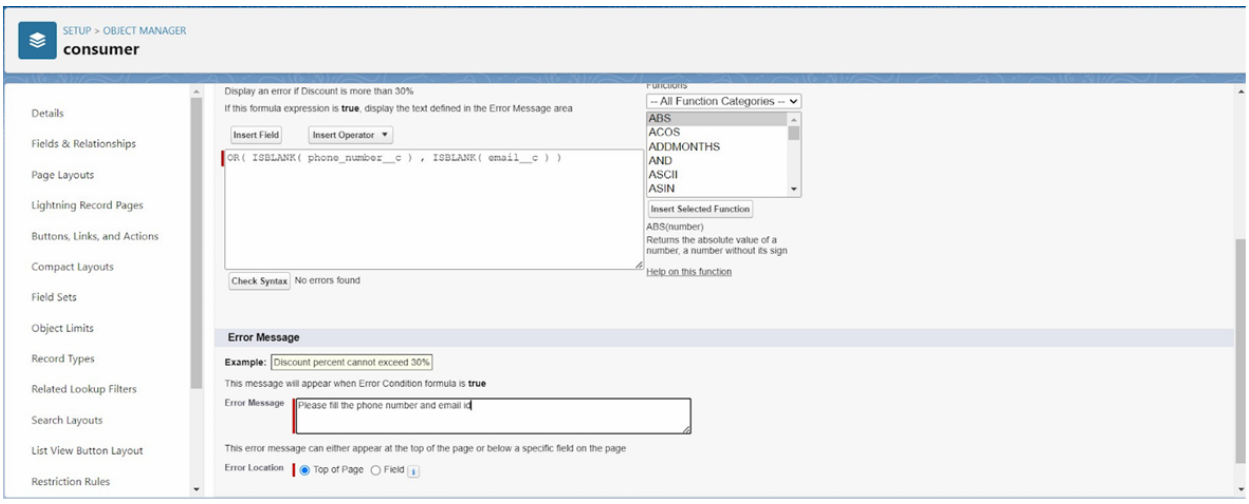
Validation rule:

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.

Improve the quality of your data using validation rules. Validation rules verify that the data a user enters in a record meets the standards you specify before the user can save the record. A validation rule can contain a formula or expression that evaluates the data in one or more fields and returns a value of “True” or “False”. Validation rules also include an error message to display to the user when the rule returns a value of “True” due to an invalid value.

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

1. Go to the setup page - click on the object manager - From the drop down click edit for consumer object.
2. Click on the validation rule - click New.
3. Enter the Rule name as “Phonenumberoremailblankrule ”.
4. Enter the description as “phone number and email number should not be blank”.
5. Enter the formula as “OR(ISBLANK(phone_number__c) , ISBLANK(email__c))” and check the syntax.
6. Save the validation rule.



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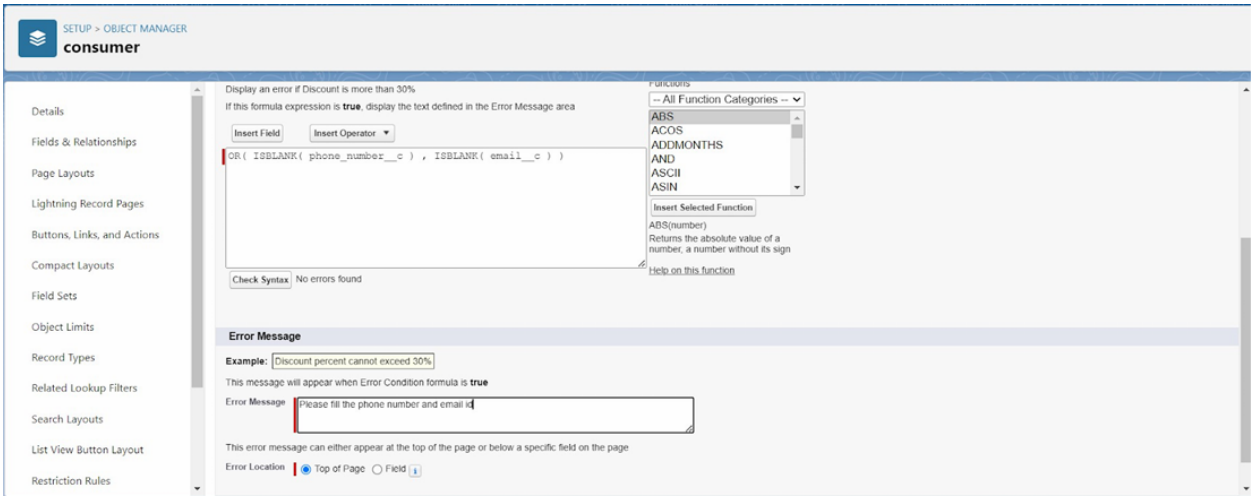


Profiles:

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, Visual force page access, Page layouts, Record Types, Login hours & Login IP ranges. You can define profiles by the user's job function. For example System Administrator, Developer, Sales Representative.

Types of profiles in salesforce:

1. Standard profiles:

By default, Salesforce provides below standard profiles.

- Contract Manager
- Read Only
- Marketing User
- Solutions Manager
- Standard User
- System Administrator.

We cannot delete standard ones.
Each of these standard ones includes a default set of permissions for all of the standard objects available on the platform.

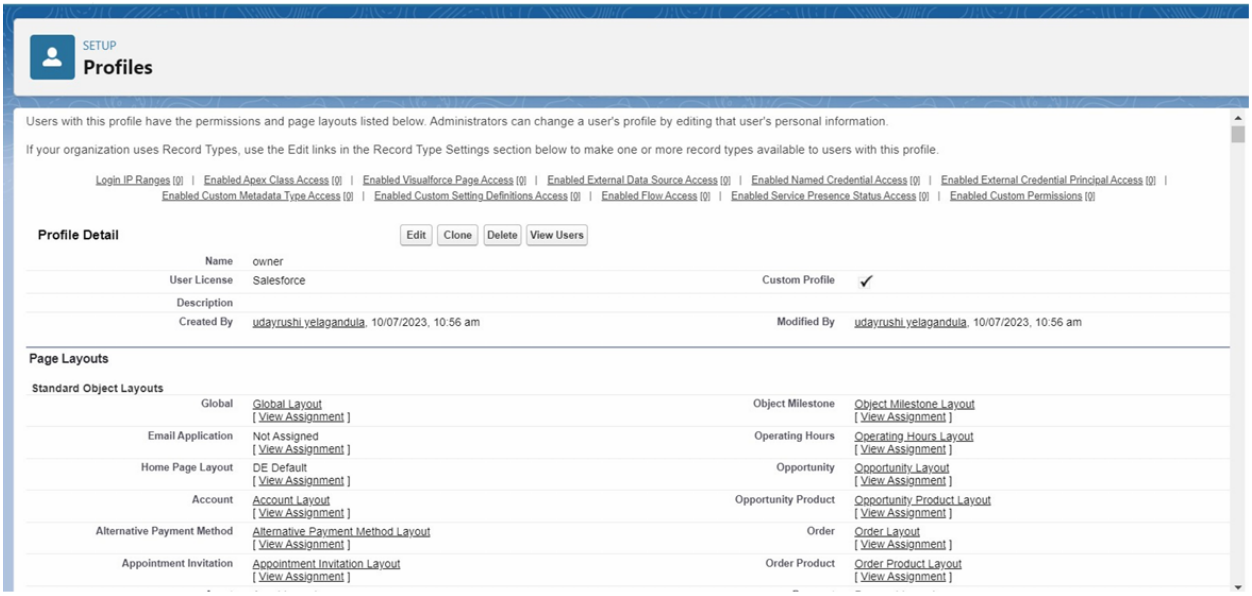
2. Custom Profiles:

Custom ones defined by us.
They can be deleted if there are no users assigned to that particular one.

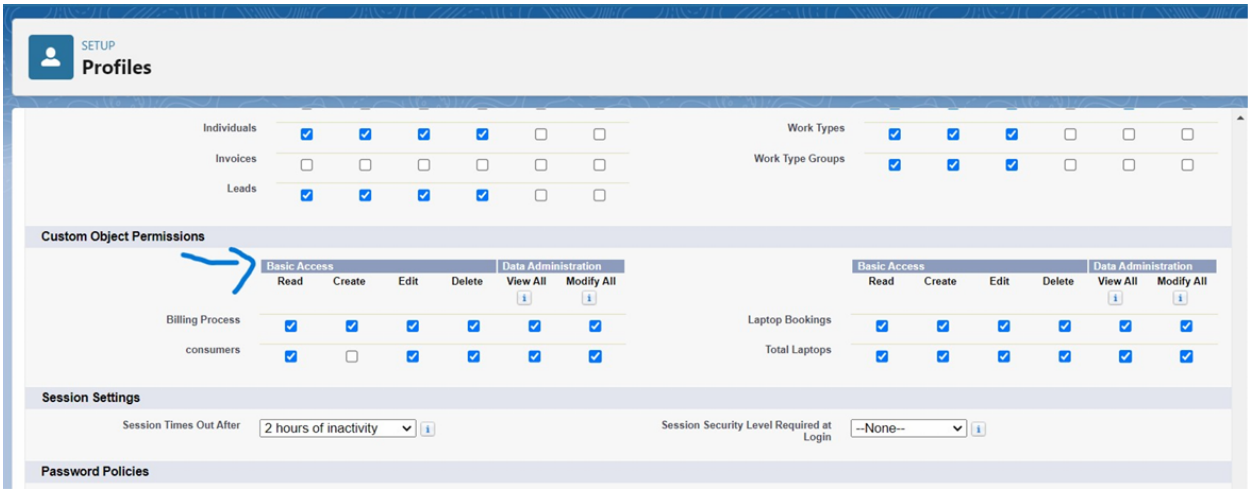
Owner Profile:

To create a new profile:

1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Standard User) >> enter profile name (owner) >> Save.



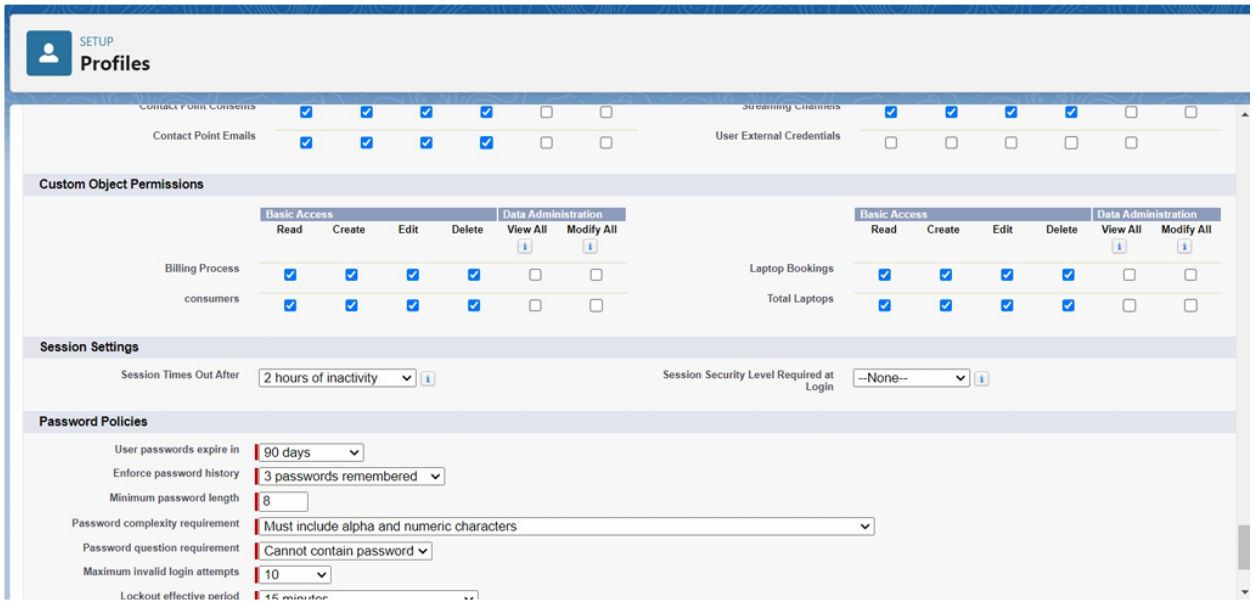
Scroll down to Custom Object Permissions and Give access permissions for Total Laptops, consumers , Laptop Booking and Billing Process objects as mentioned in the below diagram.



3. Give Access and Save it.

Agent Profile :

1. Go to setup >> type profiles in the quick find box >> click on profiles >> clone the desired profile (Standard Platform User) >> enter profile name (Agent) >>Save.
2. While still on the profile page, then click Edit.
3. Scroll down to Custom Object Permissions and Give access permissions for Total Laptops, consumer, Laptop Bookings and Billing Process objects as mentioned in the below diagram.



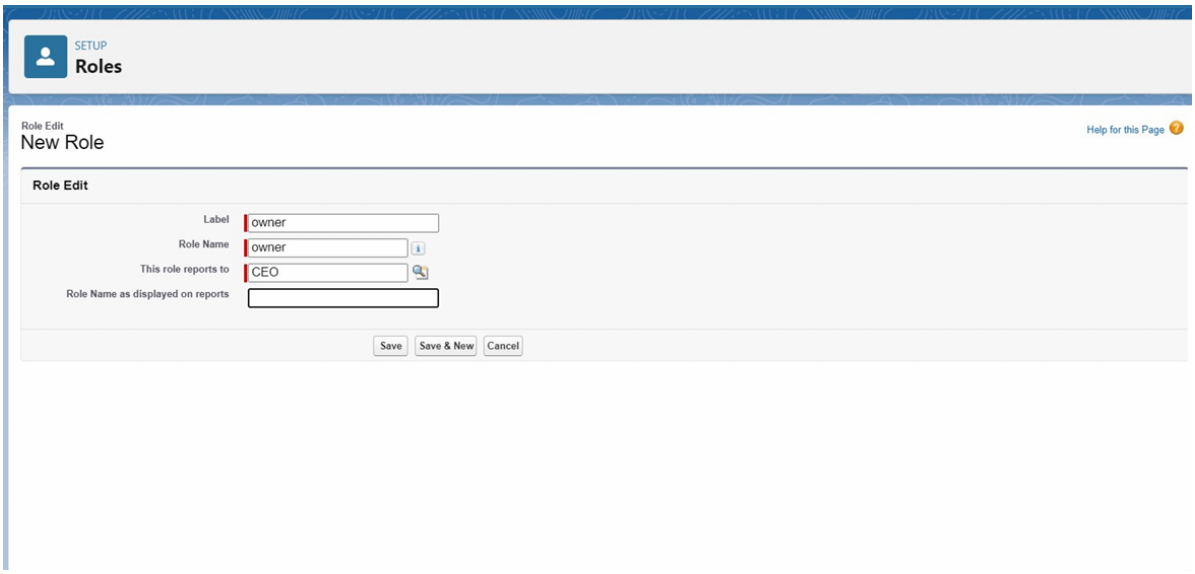
Roles and Hierarchy:

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. Go to quick find >> Search for Roles >> click on set up roles.
2.Click on Expand All and click on add role under whom this role works.

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

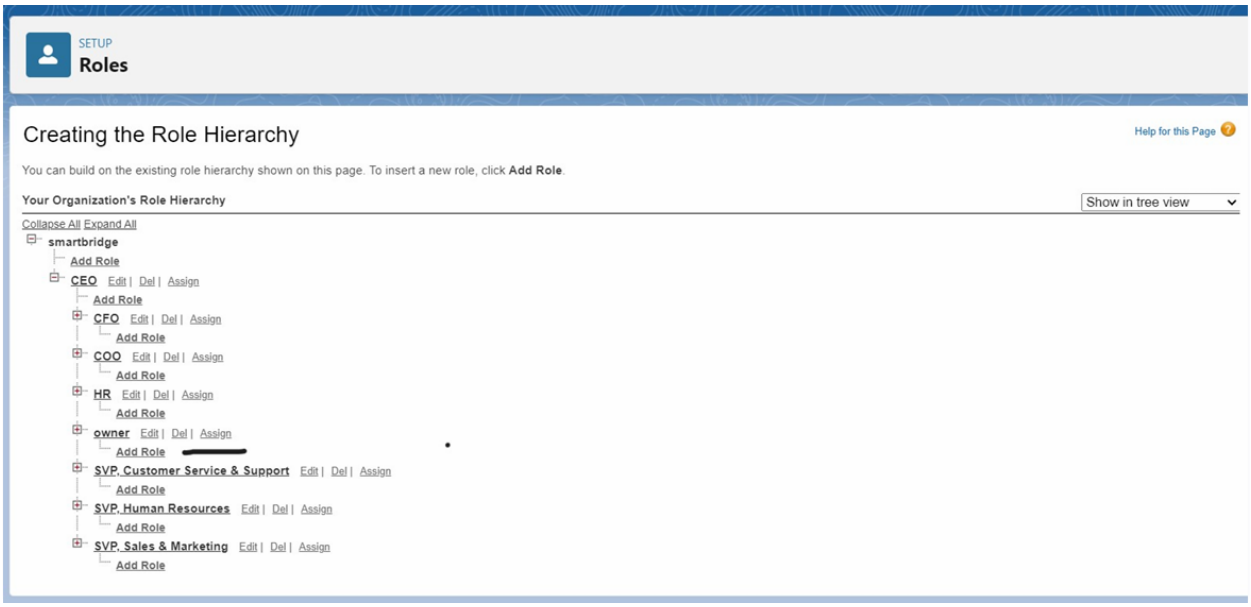


2. Click and save it.

Activity 2: Creating Agent roles:

Creating another two roles under the manager:

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



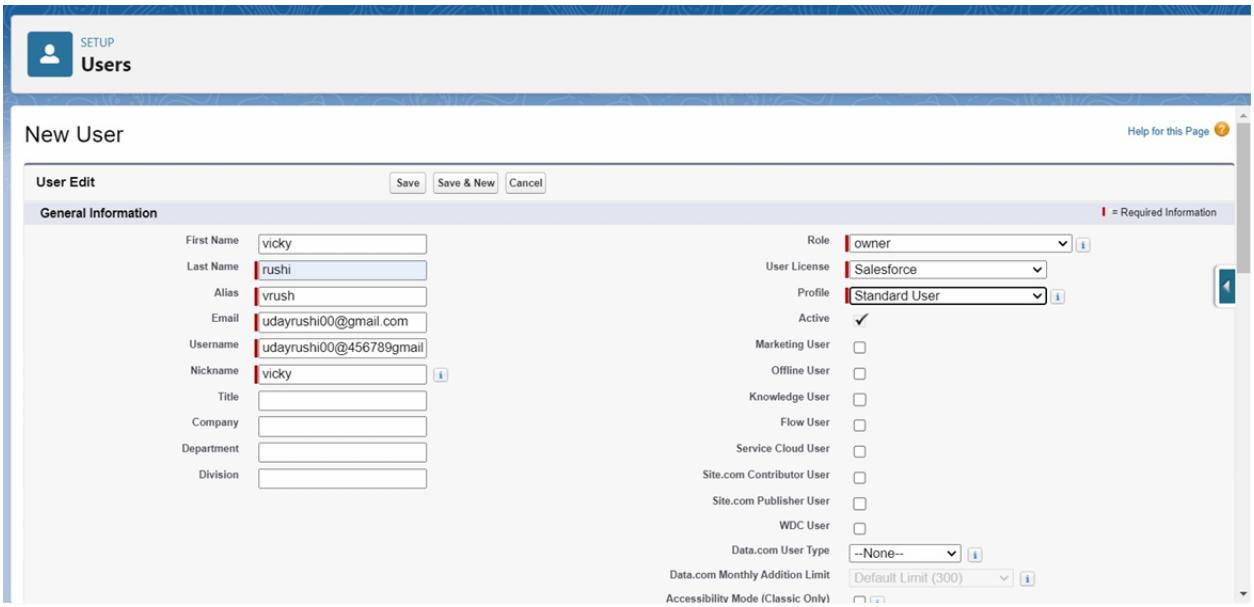
4. Give Label as “Agent” and Role name gets auto populated. Then click on Save.

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:

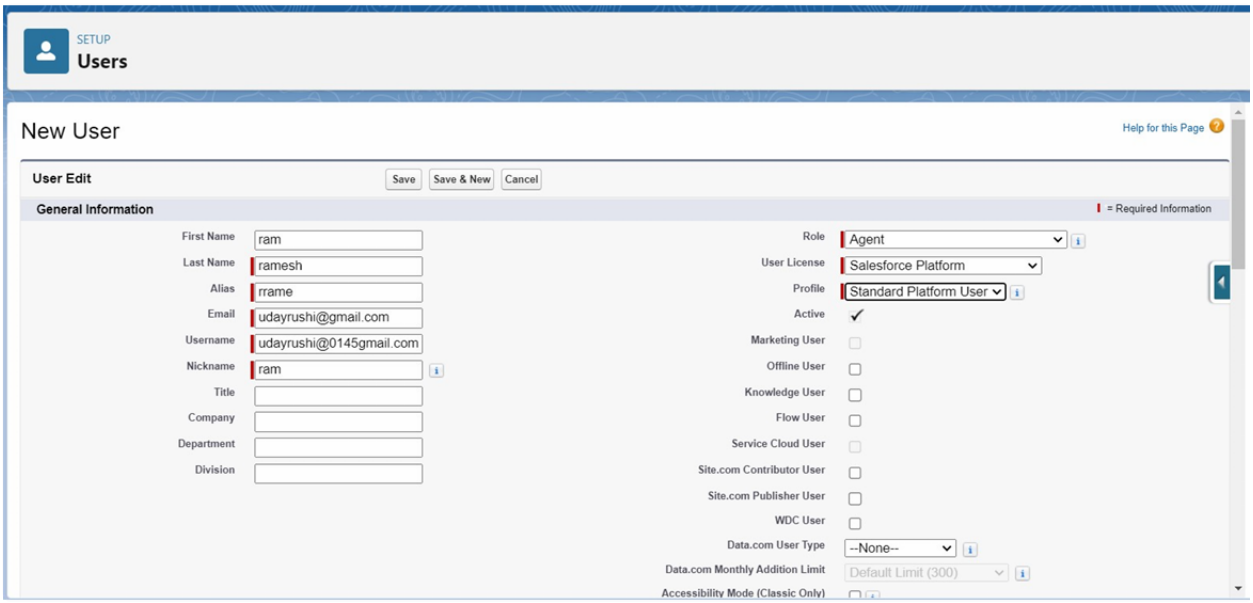
1. Go to setup - type users in the quick find box - select users -click New user.
2. Fill in the fields
3. First Name : Vicky
4. Last Name : y
5. Alias : Give an Alias Name
6. Email id : Give your Personal Email id
7. Username : Username should be in this form: text@text.text
8. Nick Name : Give a Nickname
9. Role : owner
10. User license : Salesforce
11. Profiles : owner.


SETUP
Users
New User
Help for this Page
User Edit
Save
Save & New
Cancel
General Information
= Required Information
First Name
vicky
Last Name
rushi
Alias
vrush
Email
udayrushi00@gmail.com
Username
udayrushi00@456789gmail
Nickname
vicky
Title
Company
Department
Division
Role
owner
User License
Salesforce
Profile
Standard User
Active
Marketing User
Offline User
Knowledge User
Flow User
Service Cloud User
Site.com Contributor User
Site.com Publisher User
WDC User
Data.com User Type
--None--
Data.com Monthly Addition Limit
Default Limit (300)
Accessibility Mode (Classic Only)

Save it.

Activity 2: creating another user

1. Go to setup -type users in the quick find box - select users -click New user.
2. Fill in the fields
3. First Name : ram
4. Last Name : ram
5. Alias : Give an Alias Name
6. Email id : Give your Personal Email id
7. Username : Username should be in this form: text@text.text
8. Nick Name : Give a Nickname
9. Role : Agent
10. User license : Salesforce platform
11. Profiles : standard platform user.



Save it.

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.
In Salesforce, "flows" typically refer to Salesforce Flow, which is a powerful automation tool that allows you to create custom, automated processes in your Salesforce org without writing code. Salesforce Flow is a point-and-click tool that enables you to design and automate complex business processes, collect data, and interact with users in a visual interface. There are different types of flows in Salesforce, including: Screen Flows: These are used to guide users through a series of screens to collect or display information. Screen Flows are often used for data entry and updates.
Auto launched Flows: These are flows that are triggered by events, such as when a record is created or updated. They don't require user interaction and can be used for background automation.
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. These templates cover a variety of use cases, from simple to complex.

Create a Flow on Dell laptop:

1. Go to Setup and type "Flow" in the Quick Find box.
2. Select "Flow" and click "New Flow".
3. Choose "Record-Triggered Flow" and click "Create".
4. Select "Laptop Booking" from the object dropdown.
5. Set the trigger as "A record is Created or Updated".
6. Optimize the flow for "Actions and Related Records".
7. Click "+" under the flow canvas and select "Decision".
8. Set the label to "Update" (API name auto-generates).
9. Add outcomes for Dell, Acer, HP, and Mac.
10. After the laptop model decision, add another decision for the core type (i3, i5, i7).
11. Define conditions for core types (e.g., "core type equals i3").
12. Add outcomes for Dell core types (i3, i5, i7).
13. After the core type decision, add another decision for months (1-5).
14. Set conditions for months (e.g., "how many months equals 1").

15. Add outcomes for months selected (1, 2, 3, 4, 5).
16. Add an "Update Record" action based on month selection.
17. Set Amount__c values for Dell i3 (1000, 2000, etc.).
18. Repeat the process for Dell i5 and i7 with corresponding amounts.
19. Connect outcomes to the appropriate update record actions.
20. Save and activate the flow.
**Similarly, we did for the remaining laptops also.

Creating Classes :

Apex classes are modeled on their counterparts in Java. You'll define, instantiate, and extend classes, and you'll work with interfaces, Apex class versions, properties, and other related class concepts.

- Class:
- As in Java, you can create classes in Apex. A class is a template or blueprint from which objects are created. An object is an instance of a class.
- Object

  Object is an instance of a class, where it can access all the properties that are present in a class i.e, variables and methods.

Steps to create a class in APEX:

1. Login to the trailhead account and navigate to the gear account in the top right corner.
2. Then we can see the Developer console. Click on the developer console, and you will navigate to a new console window.
3. Then you can see many tools in the Toolbar of the new console window. Click on File, New, and Apex Class.
4. Enter the name of the class to create a new class file.

Trigger code:

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

1.LaptopBooking - trigger name
2.Laptop_Bookings__c -as per your org(go to laptop bookings object and copy from that object api name).

```
public class LaptopBookingHandler {
	public static void sendEmailNotification (List lapList){
		for(Laptop_Bookings__c lap:lapList){
```

```
                    Messaging.SingleEmailMessage email = new
Messaging.SingleEmailMessage();
                    email.setToAddresses( new List{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  to us.\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__c +'  \n Laptop type = '+lap.Laptop_type__c;
                     email.setPlainTextBody(body);
                    Messaging.sendEmail(new List{email});
                }
        }
}
```

1.Class name:- LaptopBookingHandler

2.API Name:- Laptop_Bookings__c(as per your org go to laptop booking object and copy from that).

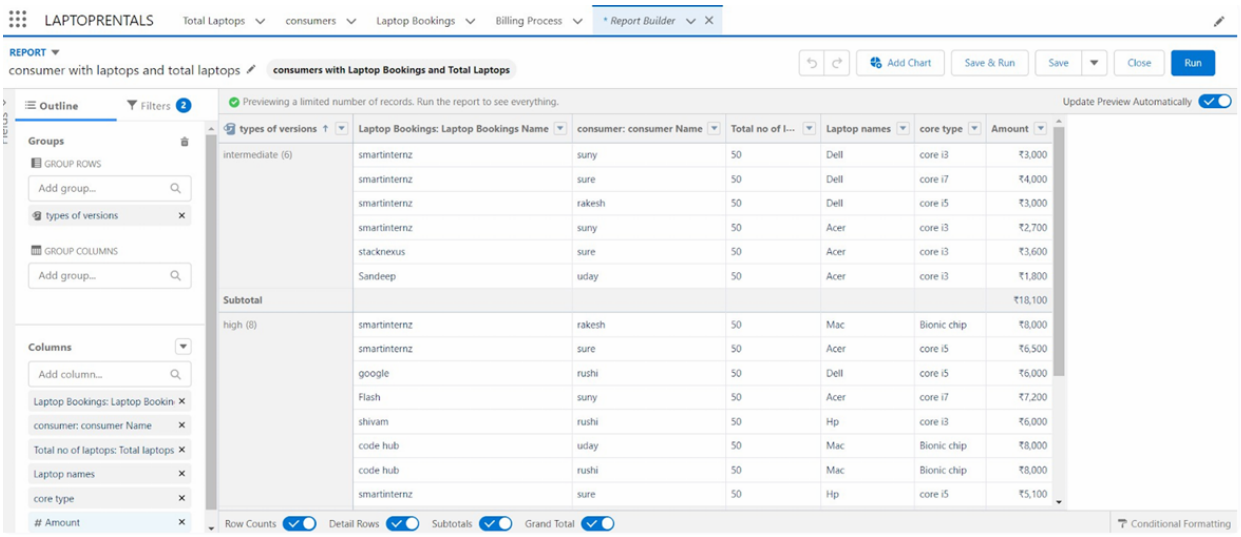
3.core__c (as per your org, go to laptop booking object and copy from that).

4.Laptop_type__c. (as per your org go to laptop booking object and copy from that).

In this project , trigger is called whenever the particular record's sum exceeds the threshold i.e minimum business requirement value. Then the code in the trigger will get executed.

Create Report:

1. Go to the app -click on the reports tab
2. Click New Report.
3. Select report type from the category or from the report type panel or from the search panel “consumer with Laptop Bookings and total laptops” >> click on start report.
4. Customize your report
5. Add fields from the left pane as shown below



1. Click the column drop down and select bucket list.
2. Click apply it.

Create Dashboard Folder:

1. Click on the app launcher and search for the dashboard.
2. Click on the dashboard tab.
3. Click the new folder, give the folder label as “total rent amount”.
4. Folder unique names will be auto populated.
5. Click save.