

PROJECT REPORT

A CRM APPLICATION FOR LAPTOPS RENTALS

(DEVELOPER)-(LONG TERM)

MILESTONE -01: Create a Salesforce org

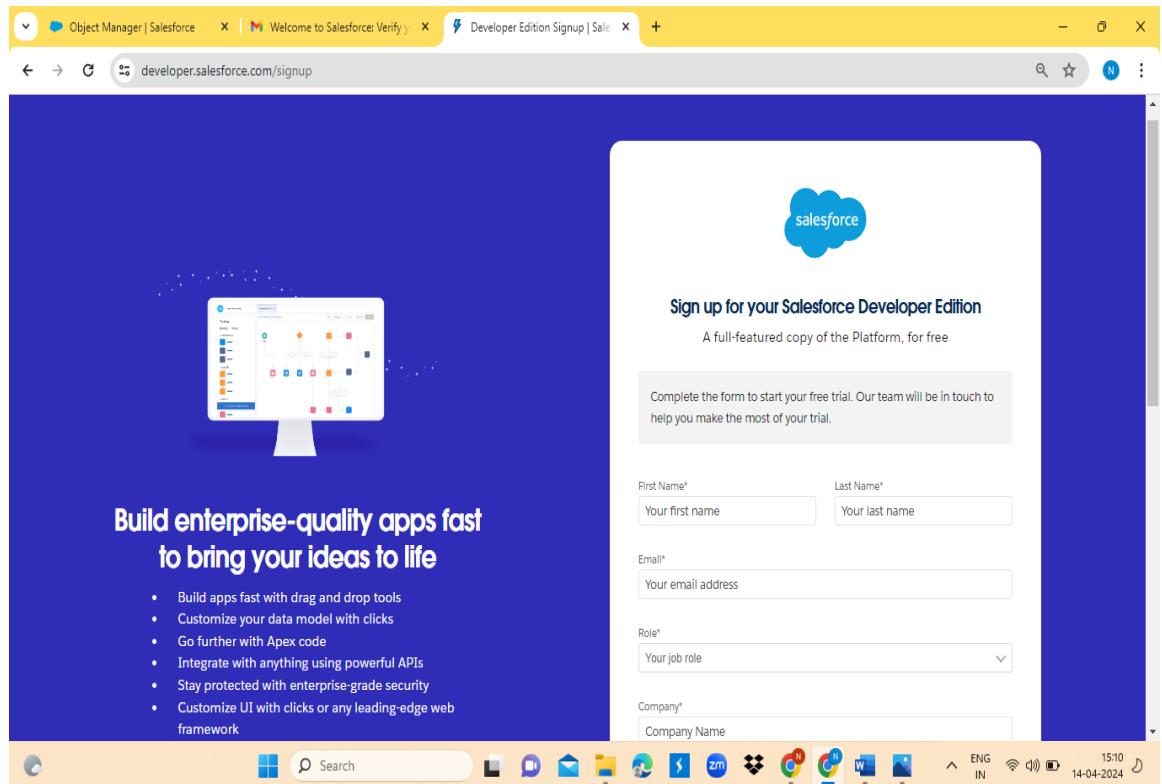
Creating Developer Account:

Creating a developer org in salesforce.

1. Go to <https://developer.salesforce.com/signup>
2. On the sign up form, enter the following details :
 - 1)First name & Last name: K.NANDINI & KUMAR
 - 2) Email: nandinisalesforce2023@gmail.com
 - 3) Role : DEVELOPER
 - 4) Company : GAYATRI DEGREE COLLEGE TIRUPATI
 - 5) County : India
 - 6) Postal Code : 517501
- 7) Username : nandinisalesforce@projectgdc.com

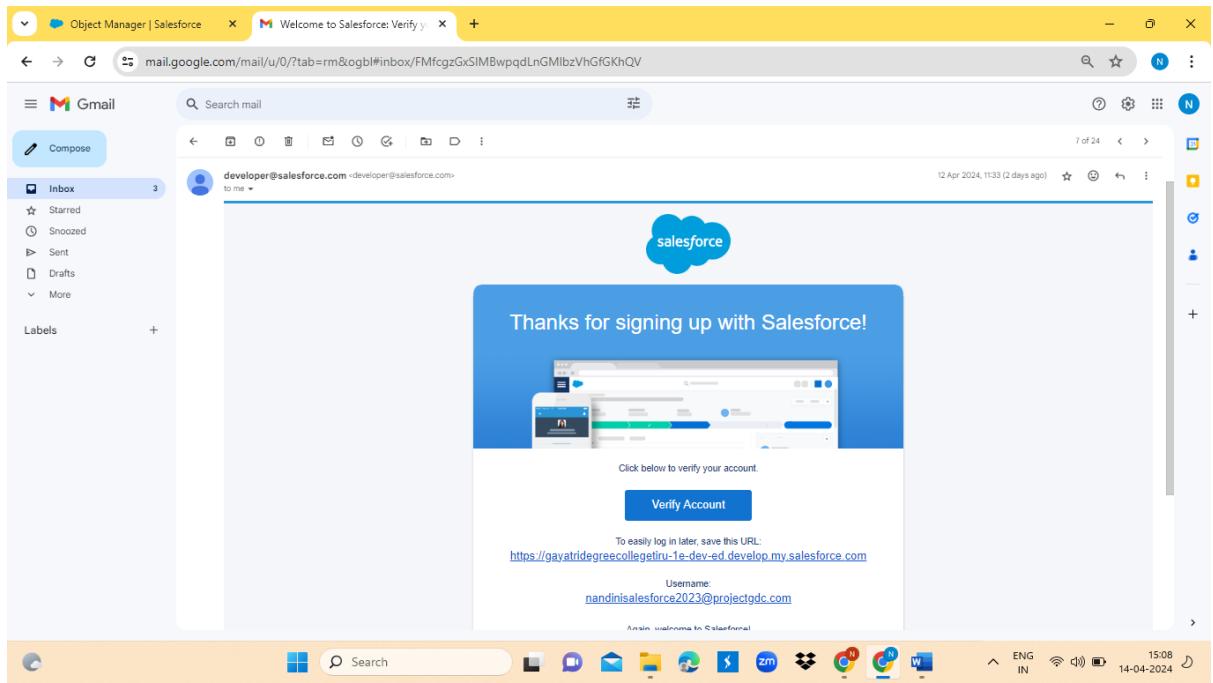
This need not be an actual email id, you can give anything in the format : username@organization.com

Click on sign me up after filling these.



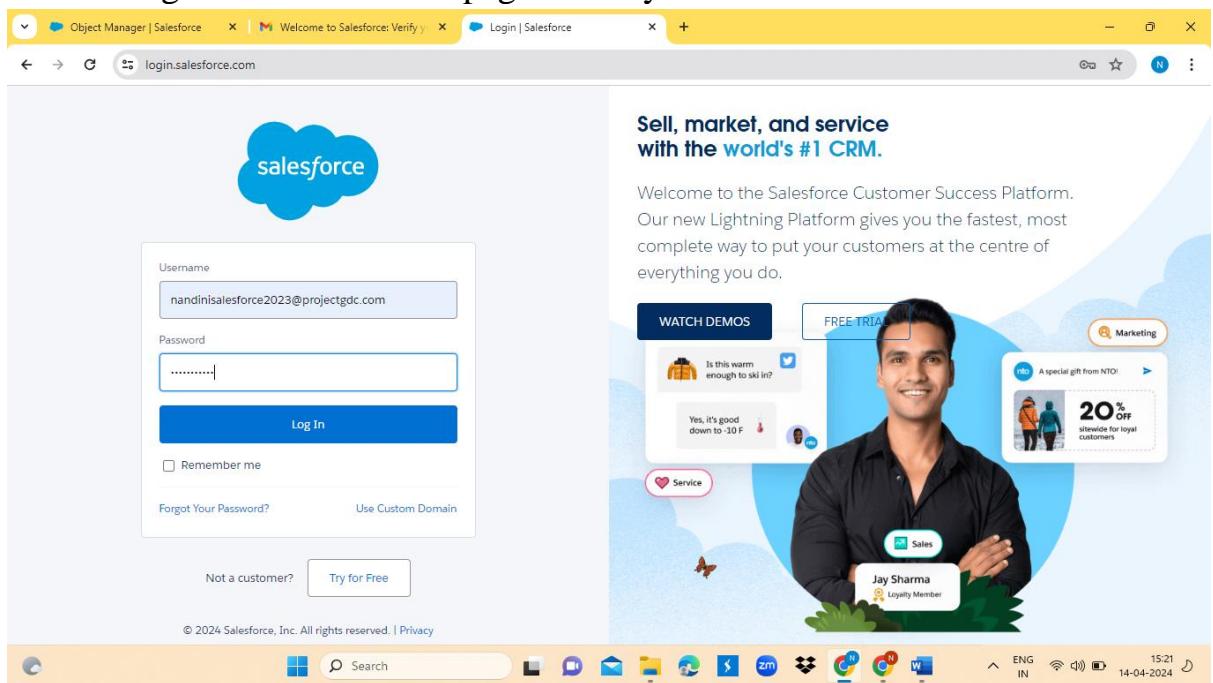
Account Activation

Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins.



Login to Your Salesforce Account

1. Go to salesforce.com and click on login.
2. Enter the username and password that you just created.
3. After login this is the home page which you will see.



MILESTONE -02: CREATION OF OBJECTS

Object Creation

What Is an Object?

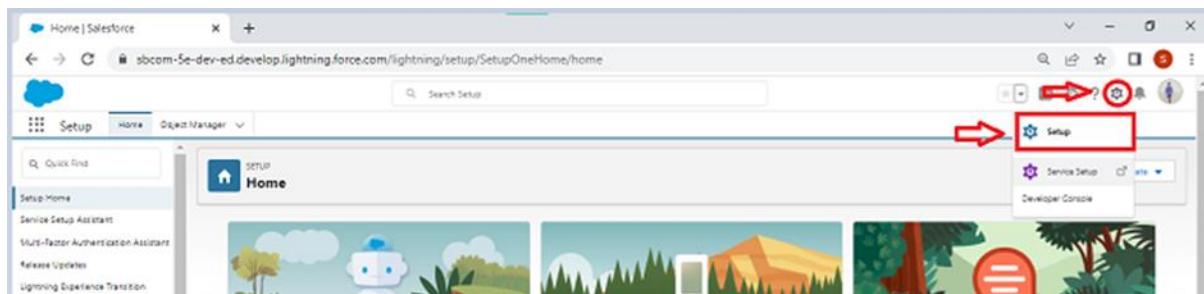
Salesforce objects are database tables that permit you to store data that is specific to an organization. What are the types of Salesforce objects

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.

To Navigate to Setup page:

Click on gear icon - click setup.

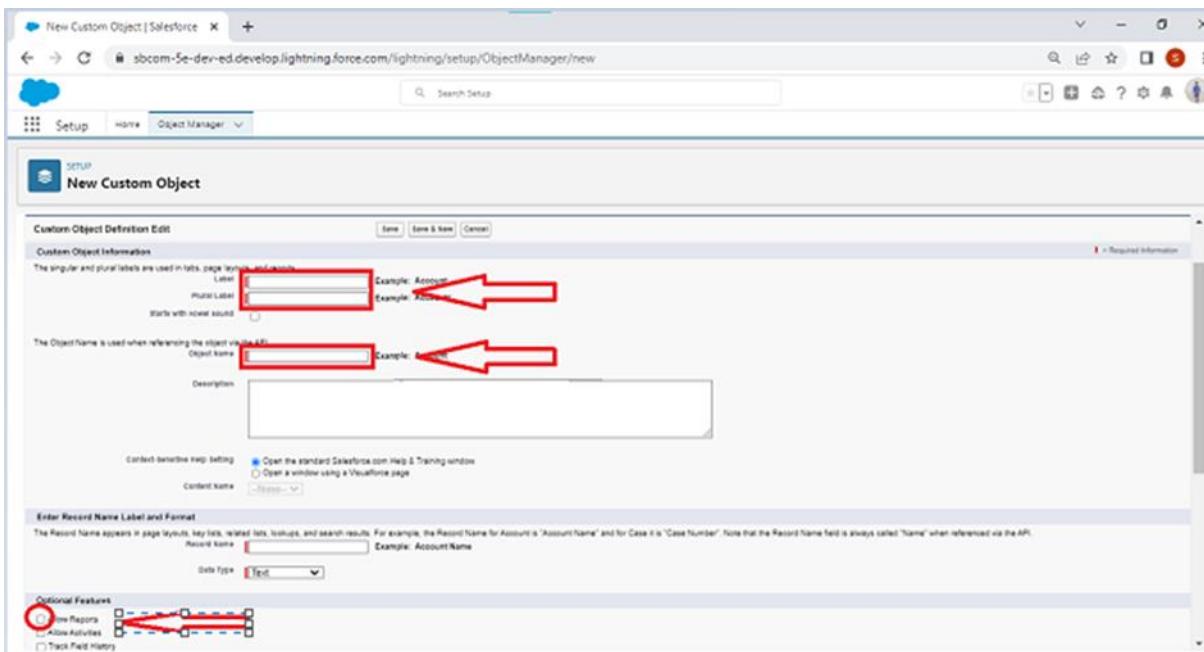


To create an object:

1. From the setup page - Click on Object Manager - Click on Create - Click on Custom Object.



2. On Custom object defining page:
3. Enter the label name, plural label name, click on Allow reports, Allow search.



4. Click on Save.

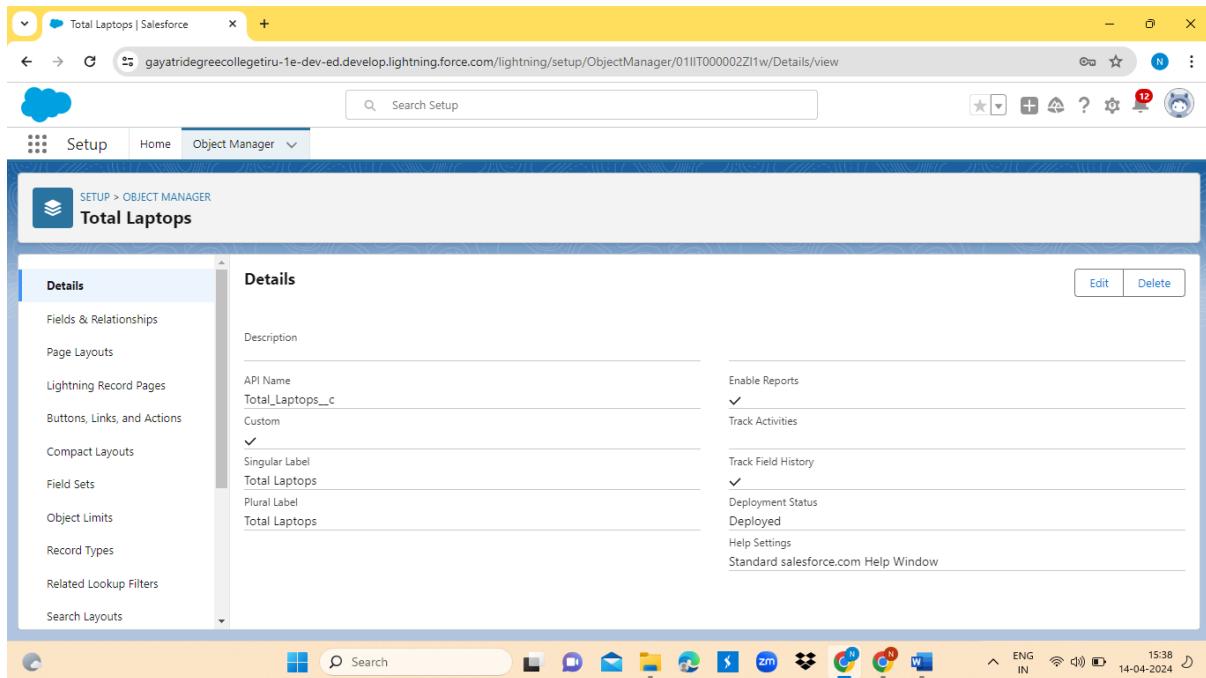
OBJECT: TOTAL LAPTOPS

Create Total Laptops Object

1. 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

Data Type - Text
2. Click on Allow reports, Allow search and Track Field History,
3. Allow search - Save.



OBJECT: CONSUMER

Create Consumer Object

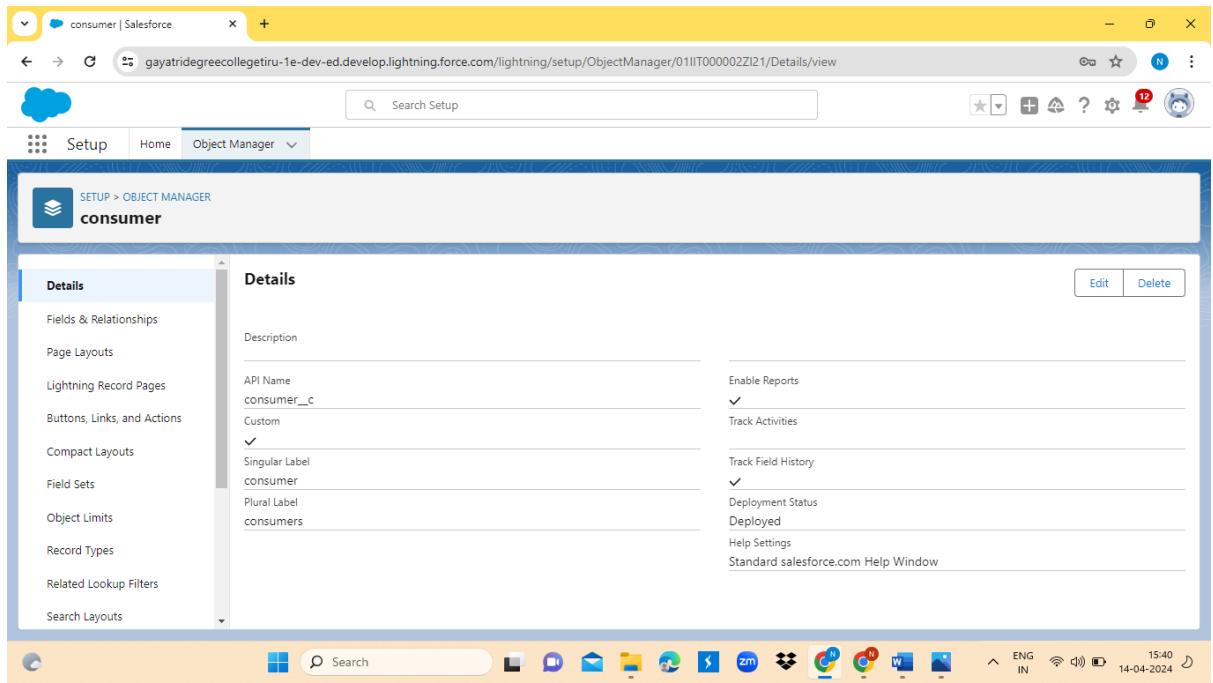
From the setup page - Click on Object Manager -Click on Create - Click on Custom Object.

- 1) Enter the label name-consumer
- 2) Plural label name- consumer
- 3) Enter Record Name Label and Format

Record Name -consumer_name

Data Type - Name

2. Click on Allow reports,Allow search and Track Field History,
3. Allow search - Save.



OBJECT : LAPTOP BOOKINGS

Create Laptop Bookings Object

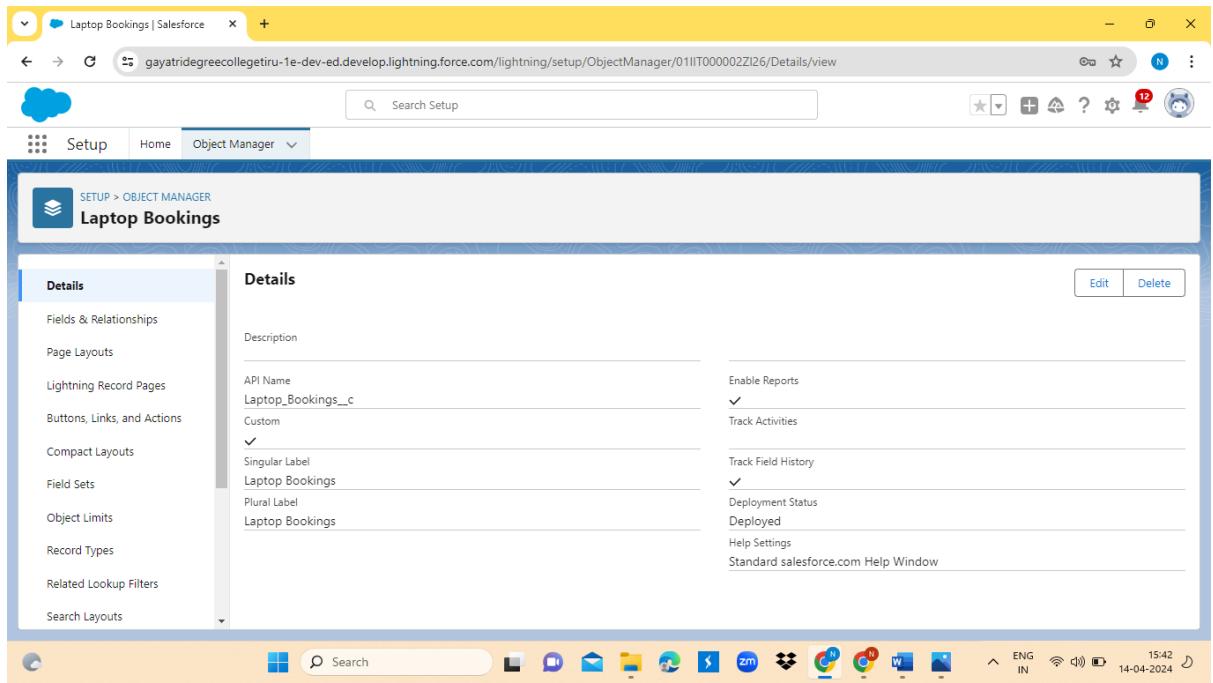
From the setup page - Click on Object Manager - Click on Create - Click on Custom Object.

- 1) Enter the label name- Laptop Bookings
- 2) Plural label name- Laptop Bookings
- 3) Enter Record Name Label and Format

Record Name - Laptop Bookings

Data Type - Name

2. Click on Allow reports,Allow search and Track Field History,
3. Allow search - Save.



OBJECT: BILLING PROCESS

Create Billing Process Object

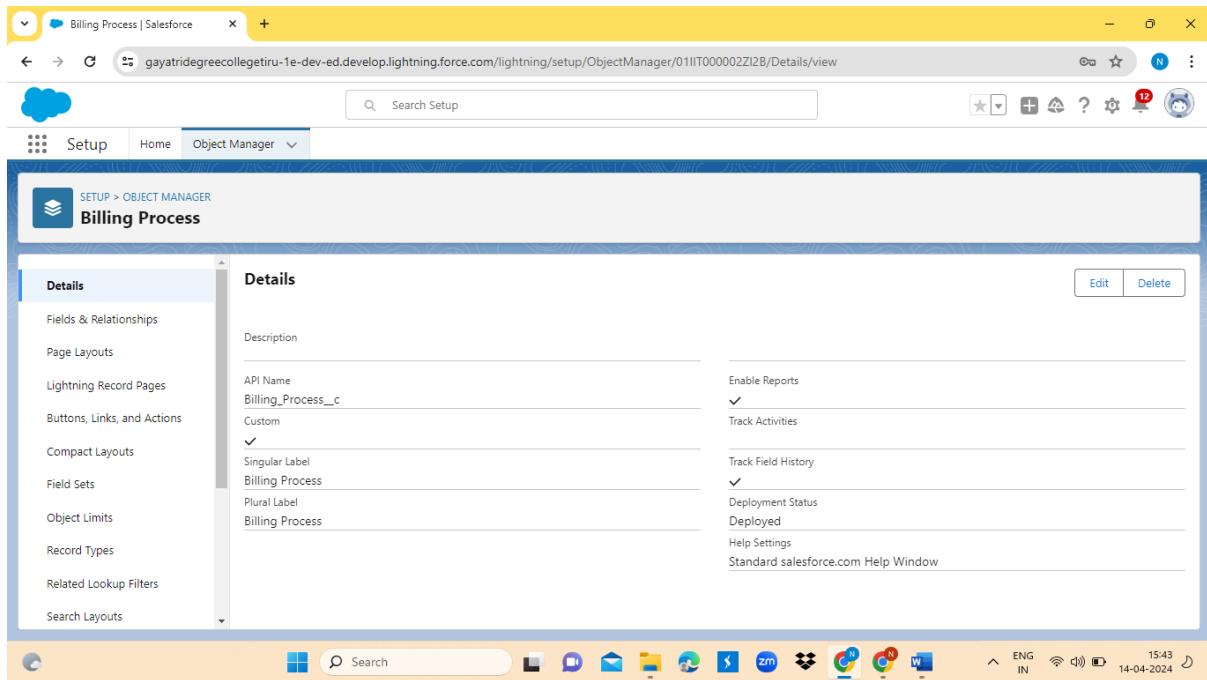
From the setup page - Click on Object Manager -Click on Create - Click on Custom Object.

- 1) Enter the label name- Billing Process
- 2) Plural label name- Billing Process
- 3) Enter Record Name Label and Format

Record Name - Billing ProcessName

Data Type - Name

2. Click on Allow reports,Allow search and Track Field History,
3. Allow search - Save.



MILESTONE -03 : CREATION OF TABS

Tabs

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

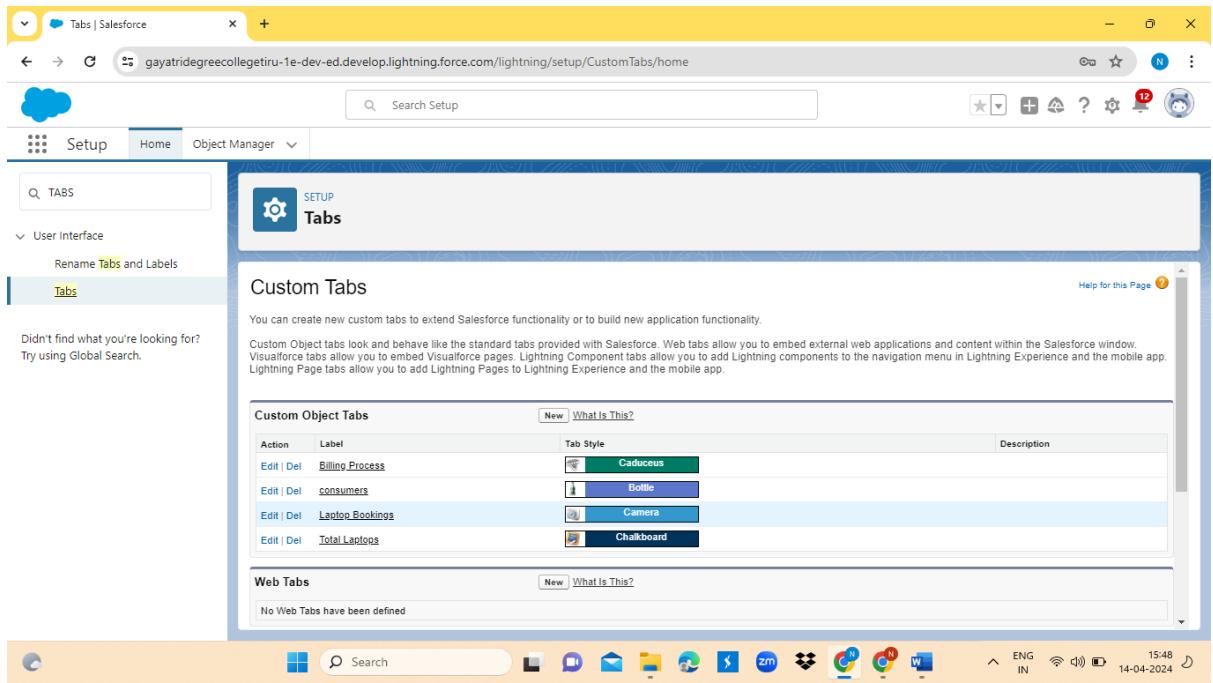
Creating A Custom Tab

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.

Activity 2: Creating Remaining Tabs

1. Now create the Tabs for the remaining Objects, they are “consumer,Laptop Booking,Billing process”.
2. Follow the same steps as mentioned in Activity -1 .



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:

1. Go to setup page -search “app manager” in quick find - select “app manager” - click on New lightning App.
1. Go to setup page -search “app manager” in quick find - select “app manager” - click on New lightning App.

App Name	Developer Name	Description	Last Modified	App Type	VLR
All Tab	AllTabSet		04/12/2022, 10:13 am	Classic	
Analytics Studio	Insights	Build CRM Analytics dashboards and apps	04/12/2022, 10:13 am	Classic	
App Launcher	AppLauncher	App Launcher tab	04/12/2022, 10:13 am	Classic	
Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your industry.	04/12/2022, 10:13 am	Lightning	
Chatter Desktop	Chatter/Desktop	Chatter Desktop is an Adobe AIR-based desktop application that lets Chatter users stay connected...	29/12/2022, 4:04 pm	Connected (Managed)	
Chatter Mobile for BlackBerry	ChatterForBlackBerry	The Salesforce.com Chatter Mobile app lets you access Chatter data on the go. Use it to view fe...	29/12/2022, 4:05 pm	Connected (Managed)	
College Management System	Nazeem	demo app	08/12/2022, 4:19 pm	Lightning	
Community	Community	Salesforce CRM Communities	04/12/2022, 10:13 am	Classic	
Content	Content	Salesforce CRM Content	04/12/2022, 10:13 am	Classic	
Data Manager	DashManager	Use Data Manager to view limits, monitor usage, and manage recipes.	04/12/2022, 10:13 am	Lightning	

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.

New Lightning App

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

* Developer Name

Description

App Branding

Image Primary Color Hex Value

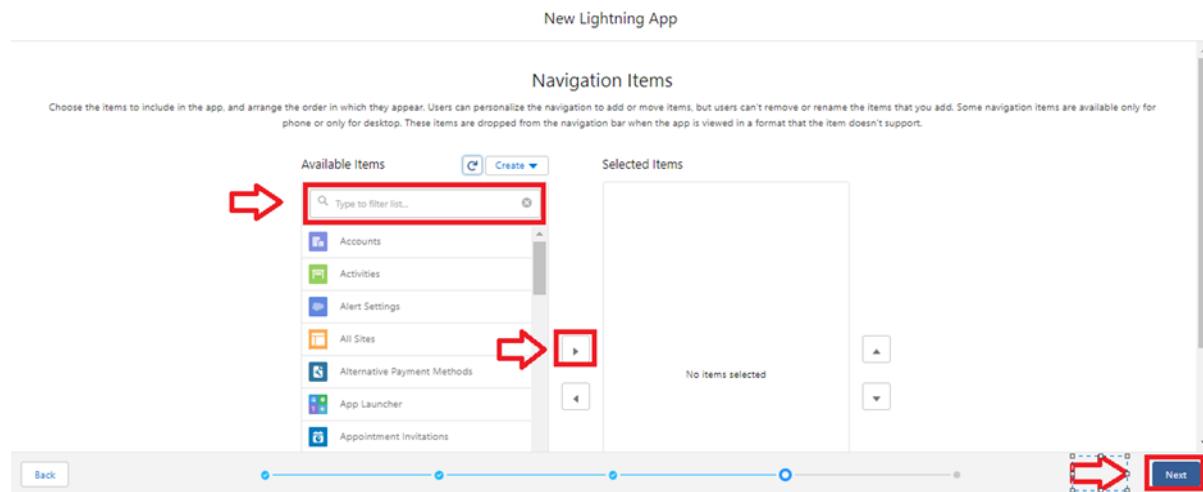
Use the app's image and color instead of the org's custom theme

App Launcher Preview

Next

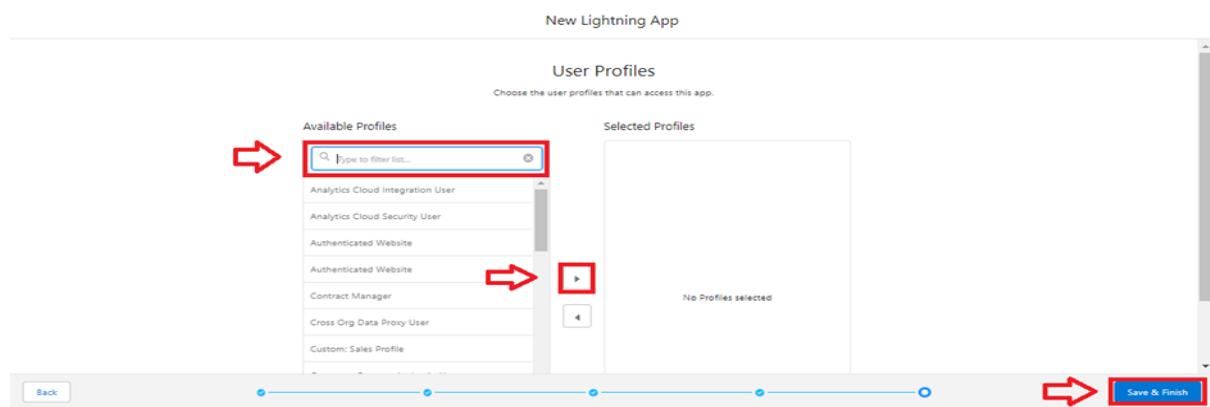
2. Upload a photo that is related to your app.

3. To Add Navigation Items:

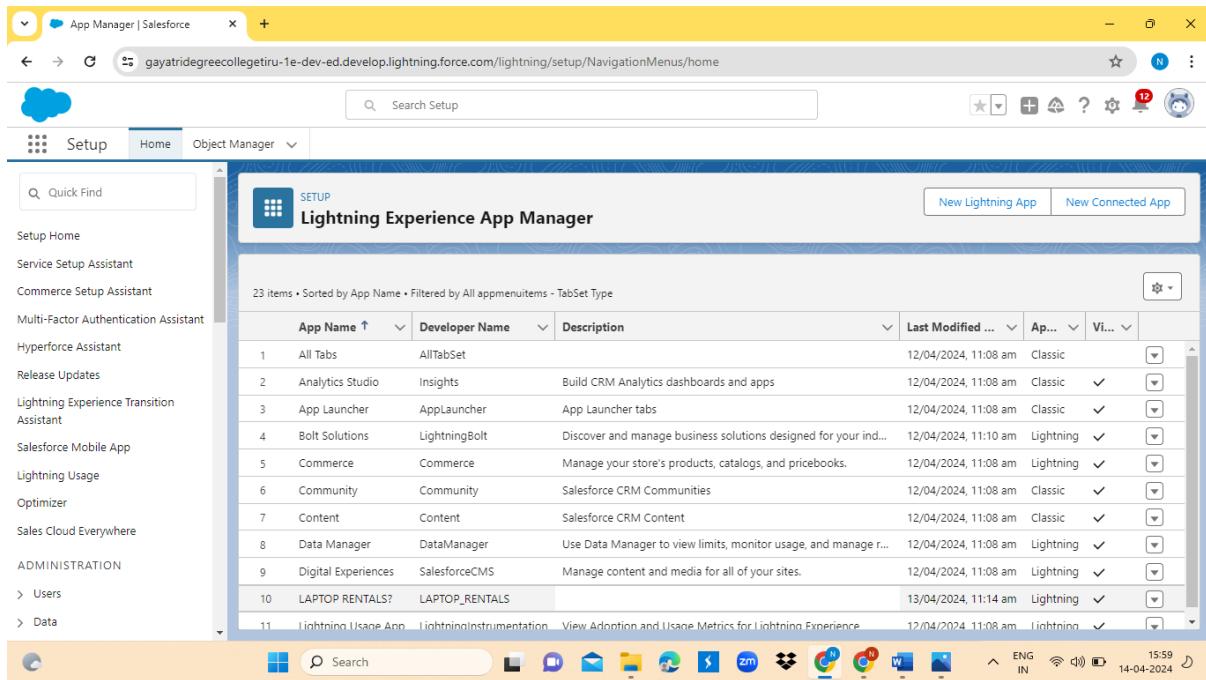


Select the items (Total Laptops, consumer, Laptop Booking, Billing Process) from the search bar and move it using the arrow button ? Next.

4. To Add User Profiles:



Search profiles (System administrator) in the search bar - click on the arrow button - save & finish.



MILESTONE-04: CREATION OF FIELDS

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:

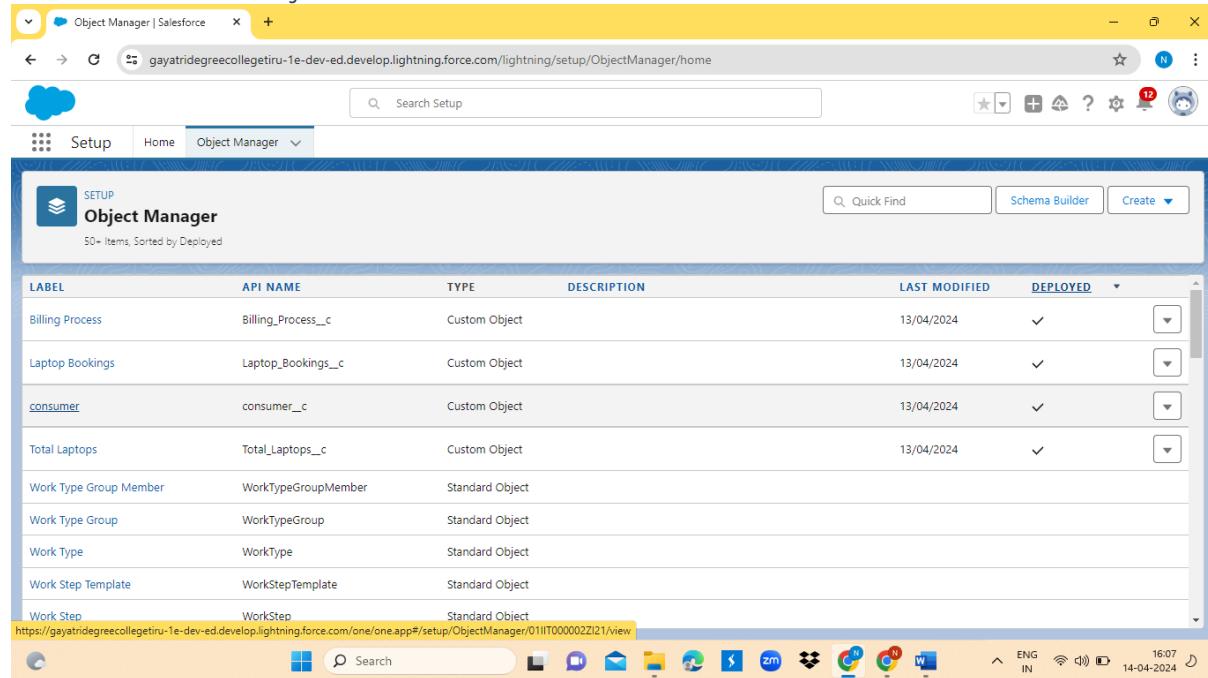
On the other side of the coin, Custom Fields are highly flexible, and users can change them according to requirements. Moreover, each organizer or company can use them if necessary. It means you need not always include them in the records, unlike

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

1. 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.



The screenshot shows the Salesforce Object Manager page. The URL in the browser is <https://gayatridegreecollegeitiru-1e-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/home>. The page displays a table of objects with columns: LABEL, API NAME, TYPE, DESCRIPTION, LAST MODIFIED, and DEPLOYED. The 'consumer' object is listed with the following details:

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Billing Process	Billing_Process__c	Custom Object		13/04/2024	✓
Laptop Bookings	Laptop_Bookings__c	Custom Object		13/04/2024	✓
<u>consumer</u>	consumer_c	Custom Object		13/04/2024	✓
Total Laptops	Total_Laptops__c	Custom Object		13/04/2024	✓
Work Type Group Member	WorkTypeGroupMember	Standard Object			
Work Type Group	WorkTypeGroup	Standard Object			
Work Type	WorkType	Standard Object			
Work Step Template	WorkStepTemplate	Standard Object			
Work Step	WorkStep	Standard 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.

consumer | Salesforce

gayatridegreecollegeiru-1e-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01IIT000002Zl21/FieldsAndRelationships/00NIT00000MAjzF/view

Setup Home Object Manager

SETUP > OBJECT MANAGER consumer

consumer Custom Field Phone number Back to consumer

Custom Field Definition Detail

Field Information

Field Label	Phone number	Object Name	consumer
Field Name	Phone_number	Data Type	Phone
API Name	Phone_number__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	nandini kumar	Modified By	nandini kumar
	12/04/2024, 11:55 am		12/04/2024, 11:55 am

General Options

Required

Default Value

Help for this Page

Page Layouts Lightning Record Pages Buttons, Links, and Actions Compact Layouts Field Sets Object Limits Record Types Related Lookup Filters Search Layouts

2. To create another 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 “Email” and Click on Next
4. Fill the Above as following:
 - Field Label: Email
 - Field Name :It's gets auto generated
 - Click on Next - Next - Save and new.

consumer | Salesforce

gayatridegreecollegeiru-1e-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01IIT000002Zl21/FieldsAndRelationships/00NIT00000MAjzK/view

Setup Home Object Manager

SETUP > OBJECT MANAGER consumer

consumer Custom Field Email Back to consumer

Custom Field Definition Detail

Field Information

Field Label	Email	Object Name	consumer
Field Name	Email	Data Type	Email
API Name	Email__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	nandini kumar	Modified By	nandini kumar
	12/04/2024, 11:57 am		12/04/2024, 11:57 am

General Options

Required

Unique

Help for this Page

Page Layouts Lightning Record Pages Buttons, Links, and Actions Compact Layouts Field Sets Object Limits Record Types Related Lookup Filters Search Layouts

3. To create another 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 “Text Area” and Click on Next
4. Fill the Above as following:
 - Field Label: Address
 - Field Name : It's gets auto generated
 - Select Required field.
 - Click on Next - Next - Save and new.

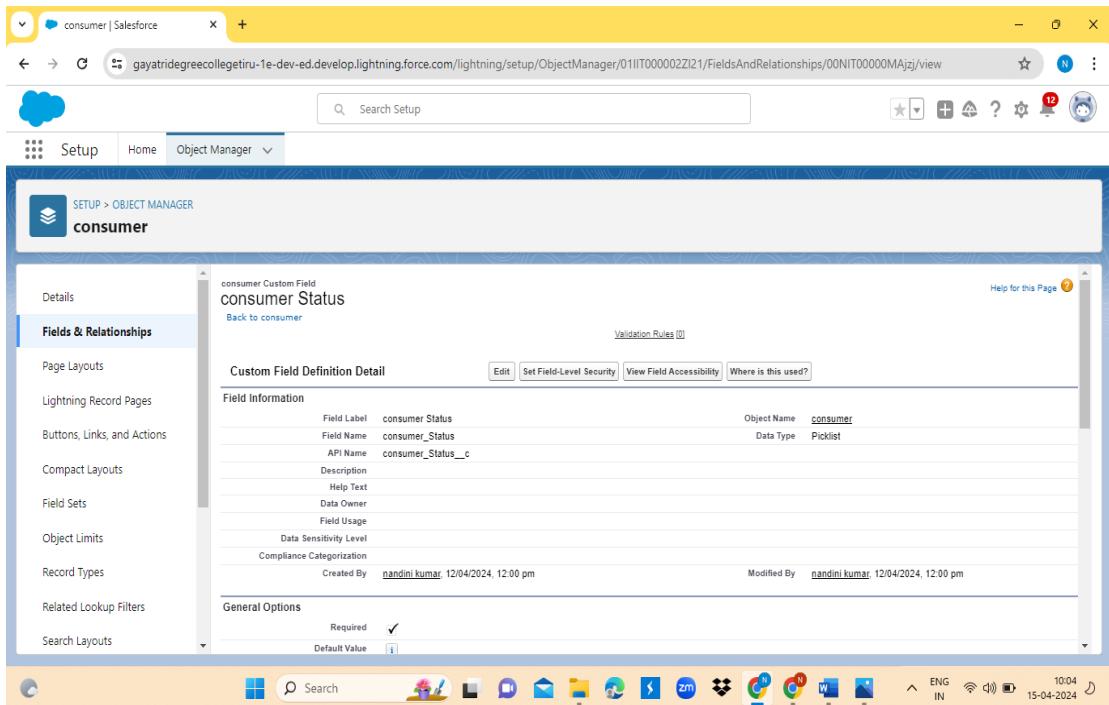
The screenshot shows the Salesforce Object Manager interface. The top navigation bar has tabs for 'Setup', 'Home', and 'Object Manager'. The main area is titled 'SETUP > OBJECT MANAGER consumer'. On the left, a sidebar lists various customization options under 'Fields & Relationships'. The right pane displays the 'Custom Field Definition Detail' for a field named 'Address'. The field information includes:

- Field Label: Address
- Field Name: Address
- API Name: Address__c
- Description: (empty)
- Help Text: (empty)
- Data Owner: (empty)
- Field Usage: (empty)
- Data Sensitivity Level: (empty)
- Compliance Categorization: (empty)
- Created By: nandini kumar 12/04/2024, 11:59 am
- Modified By: nandini kumar 12/04/2024, 11:59 am
- Object Name: consumer
- Data Type: Text Area

At the bottom of the right pane, there are sections for 'General Options' (Required checked, Default Value empty), 'Validation Rules' (empty), and 'Help for this Page'.

4. To create another 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 “Picklist” and Click on Next
4. Fill the Above as following:
 - Field Label: consumer Status
 - Value - Select enter values with each value separated by a new line
 - 1. Student
 - 2. Employee
 - 3. Others
 - Select required
 - Field Name :It's gets auto generated
 - Click on Next - Next - Save and new.



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

Laptop Bookings Custom Field
laptop names

Custom Field Definition Detail

- Field Information**
 - Field Label: laptop names
 - Field Name: laptop_names
 - API Name: laptop_names_c
 - Description: Help Text
 - Data Owner: Field Usage
 - Data Sensitivity Level: Compliance Categorization
 - Created By: pandini kumar, 12/04/2024, 12:02 pm
 - Modified By: pandini kumar, 15/04/2024, 10:08 am
- General Options**
 - Required: ✓
 - Default Value: []
- Picklist Options**
 - Restrict picklist to the values defined in the value set: ✓

7.

Action	Values	API Name	Default	Chart Colors	Modified By
[Edit] [Del] [Deactivate]	dell	dell	<input type="checkbox"/>	Assigned dynamically	pandini kumar, 12/04/2024, 12:02 pm
[Edit] [Del] [Deactivate]	acer	acer	<input type="checkbox"/>	Assigned dynamically	pandini kumar, 12/04/2024, 12:02 pm
[Edit] [Del] [Deactivate]	hp	hp	<input type="checkbox"/>	Assigned dynamically	pandini kumar, 12/04/2024, 12:02 pm
[Edit] [Del] [Deactivate]	mac	mac	<input type="checkbox"/>	Assigned dynamically	pandini kumar, 12/04/2024, 12:02 pm

2. To Create a Fields & Relationship to an Laptop Booking Object

To create fields & relationship 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 newClick on Next

NOTE:-

Field Dependency:

A field dependency refers to a relationship between two fields on an object where the values of one field determine the available values for another field. Field dependencies are commonly used to create picklist field relationships, where the available options in a dependent picklist are determined by the value selected in a controlling picklist.

Need to use Field Dependency:

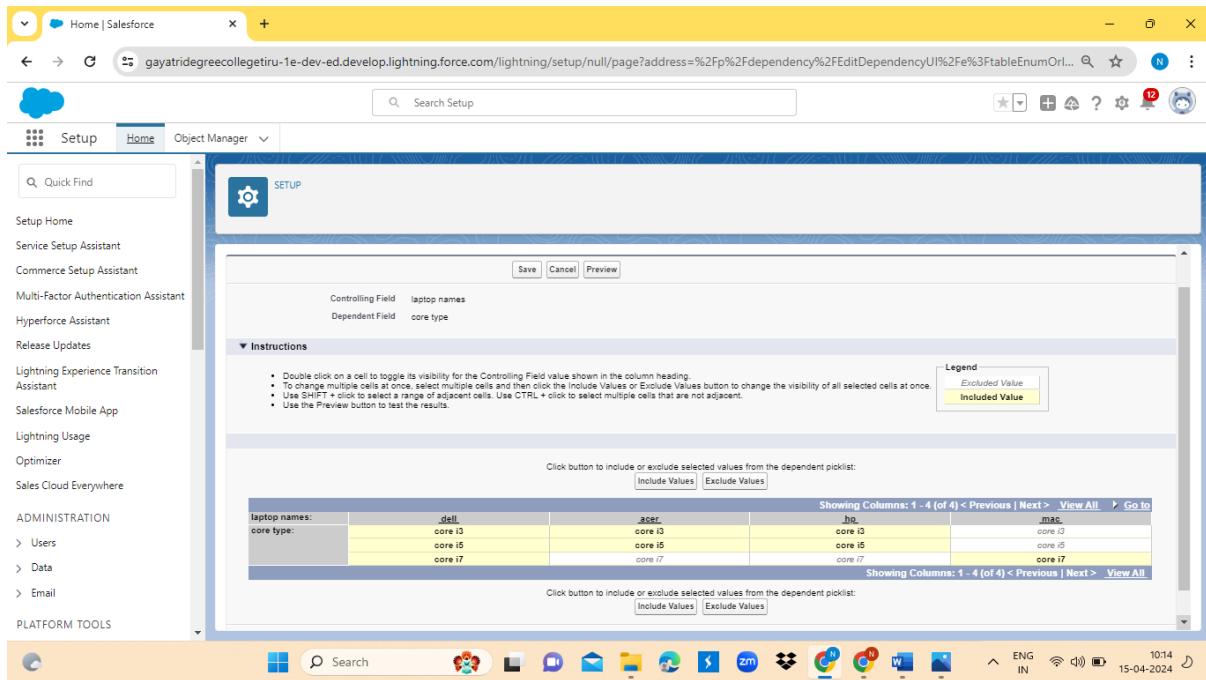
By using the field dependency we can get the different Values by selecting the different Picklist.

Action	Values	API Name	Default	Chart Colors	Modified By	Modified Date
Edit Del Deactivate	core i3	core i3	<input type="checkbox"/>	Assigned dynamically	dandini kumar	12/04/2024, 12:04 pm
Edit Del Deactivate	core i5	core i5	<input type="checkbox"/>	Assigned dynamically	dandini kumar	12/04/2024, 12:04 pm
Edit Del Deactivate	core i7	core i7	<input type="checkbox"/>	Assigned dynamically	dandini kumar	12/04/2024, 12:04 pm

To Create A Fields & Relationship To An Laptop Booking Object

To create fields & relationship 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. click field dependency and next
8. 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.
9. Click save.



To Create A Fields & Relationship To An Laptop Booking Object

To create fields & relationship 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 “Lookup Relationship”
4. Click on Next
5. Click on the Related to drop down and Select the “consumer” object and click on Next
6. Fill the Above as following:
 - Change the Field Label: Name
 - Field Name :It's gets auto generated
7. Click on Next - Next - Save and new.

The screenshot shows the Salesforce setup interface for creating a custom field named 'Name'. The 'Fields & Relationships' tab is selected. The 'Field Information' section shows the field label 'Name', field name 'Name', API name 'Name__c', and data type 'Master-Detail'. The 'Master-Detail Options' section shows it is related to 'consumer' and 'Laptop Bookings'. The 'General Options' section includes 'Required' and 'Default Value' fields. The 'Currency Options' section shows length '18' and decimal places '0'. The 'Validation Rules' section is empty.

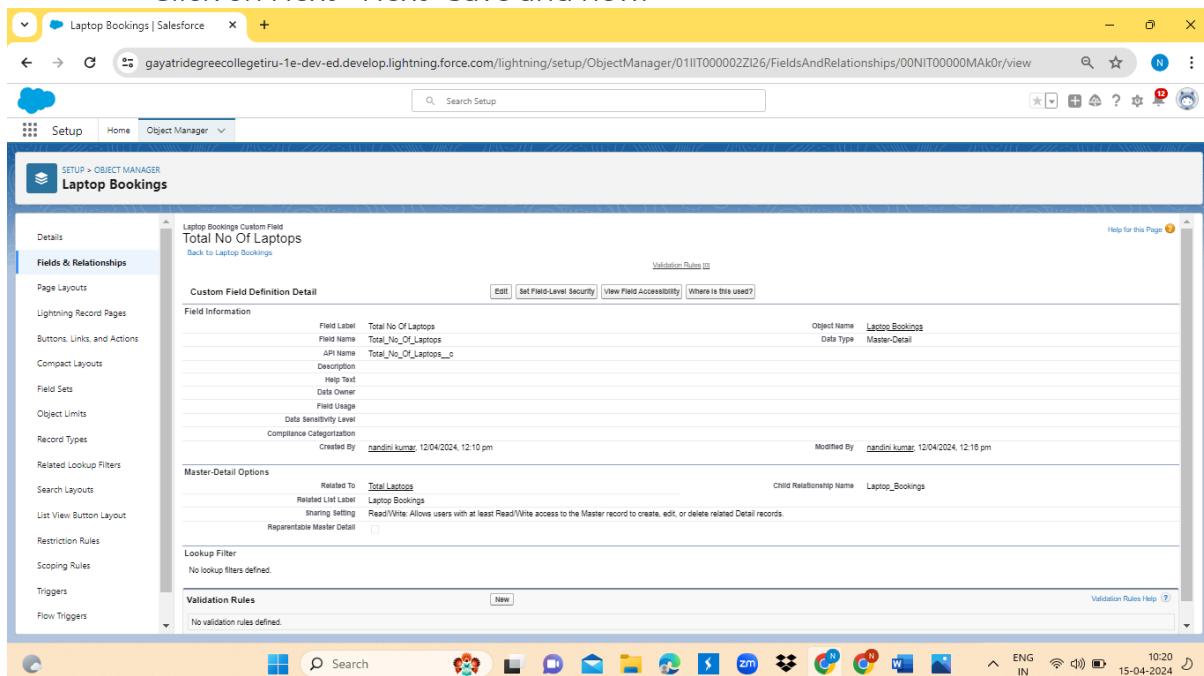
To create fields in an object:

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 “Currency”
 5. Click on Next
- Fill the Above as following:
- Field Label: Amount
 - Length: (18,0)
 - Field Name :It's gets auto generated
 - Click on Next - Next - Save and new

The screenshot shows the Salesforce setup interface for creating a custom field named 'Amount'. The 'Fields & Relationships' tab is selected. The 'Field Information' section shows the field label 'Amount', field name 'Amount', API name 'Amount__c', and data type 'Currency'. The 'General Options' section includes 'Required' and 'Default Value' fields. The 'Currency Options' section shows length '18' and decimal places '0'. The 'Validation Rules' section is empty.

To Create a Fields & Relationship 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 “Lookup Relationship”
4. Click on Next
6. Click on the Related to drop down and Select the “Total Laptops” object and click on Next
 - Fill the Above as following:
 - Change the Field Label: Total No Of Laptops
 - Field Name :It's gets auto generated
 - Click on Next - Next -Save and new.



4. To Create a Fields & Relationship to an Laptop Booking Object

To create fields & relationship to an object:

8. Go to setup - click on Object Manager - type object name(Laptop Booking) in the search bar - click on the object.
9. Now click on “Fields & Relationships” - New
10. Select Data Type as a “Email”
11. Click on Next and save it.

NOTE:- fill the records which you have created in consumer and laptop bookings and give relations also. After saving the records go to the laptop bookings object and edit lookup to master the detailed relationship.

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 names	laptop_names_c	Picklist		
Laptops Available	Laptops_Available_c	Formula (Number)		
Last Modified By	LastModifiedById	Lookup(User)		
Name	Name_c	Master-Detail(consumer)		✓
Name	Name	Text(80)		✓
Total No Of Laptops	Total_No_Of_Laptops_c	Master-Detail(Total Laptops)		✓

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

1. After Creating the Lookup 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

Step 1. Choose the field type

Specify the type of information that the custom field will contain.

Data Type

None Selected Select one of the data types below.

Auto Number A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.

Formula A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.

Roll-Up Summary A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.

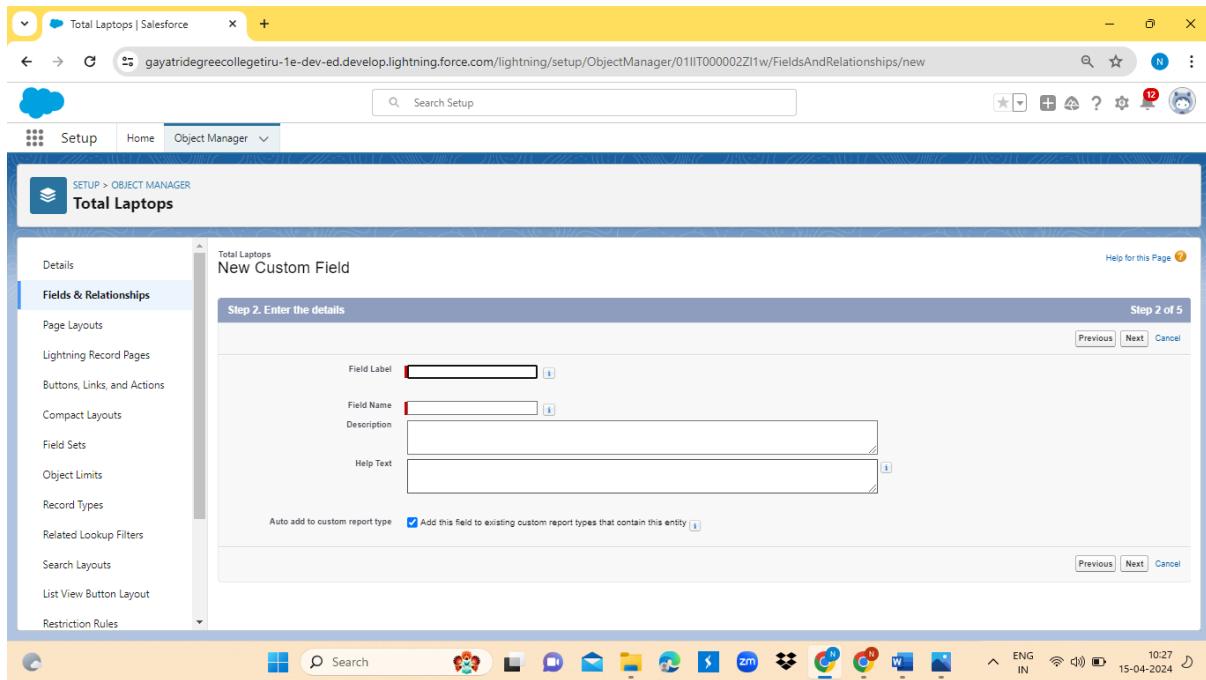
Lookup Relationship Creates a relationship that links this object to another object. The relationship field allows users to click on a lookup icon to select a value from a popup list. The other object is the source of values in the list.

Master-Detail Relationship Creates a special type of parent-child relationship between this object (the child, or “detail”) and another object (the parent, or “master”) where:

- The relationship field is required on all detail records.
- The ownership and sharing of a detail record are determined by the master record.
- When a user deletes the master record, all detail records are deleted.
- You can create rollup summary fields on the master record to summarize the detail records.

4. Select Data type as a “Roll-up Summary” and Click on Next

- Fill the Above as following:
- Field Label: Laptops delivered
- Field Name :It's gets auto generated



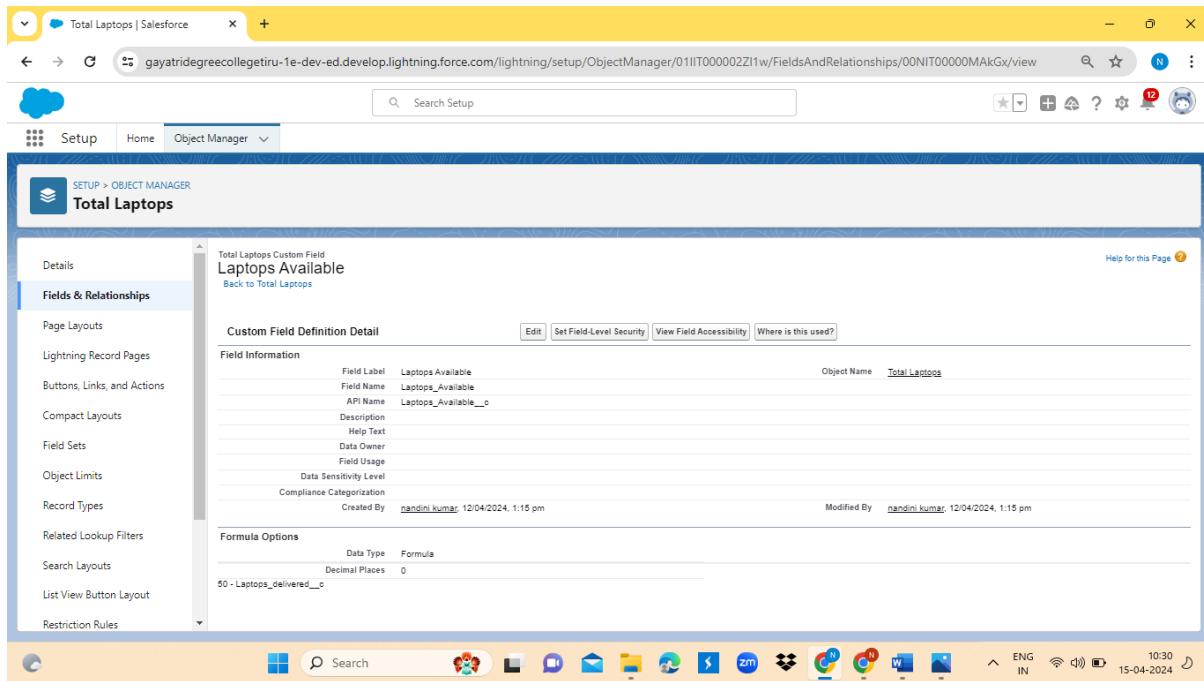
6. Select the Laptop Bookings in the Summarized Object
 7. Select the count Radio button in the select Roll-up Type
 • Click on Next

Fields & Relationships					
	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	LastModifiedBy	Lookup(User)		
	Owner	OwnerId	Lookup(User,Group)		✓
	Total Laptops	Name	Text(80)		✓

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. Fill the Above as following:
 - Field Label: Laptops Available
 - Field Name : It's gets auto generated
 - Select the Formula Return Type as “Number”

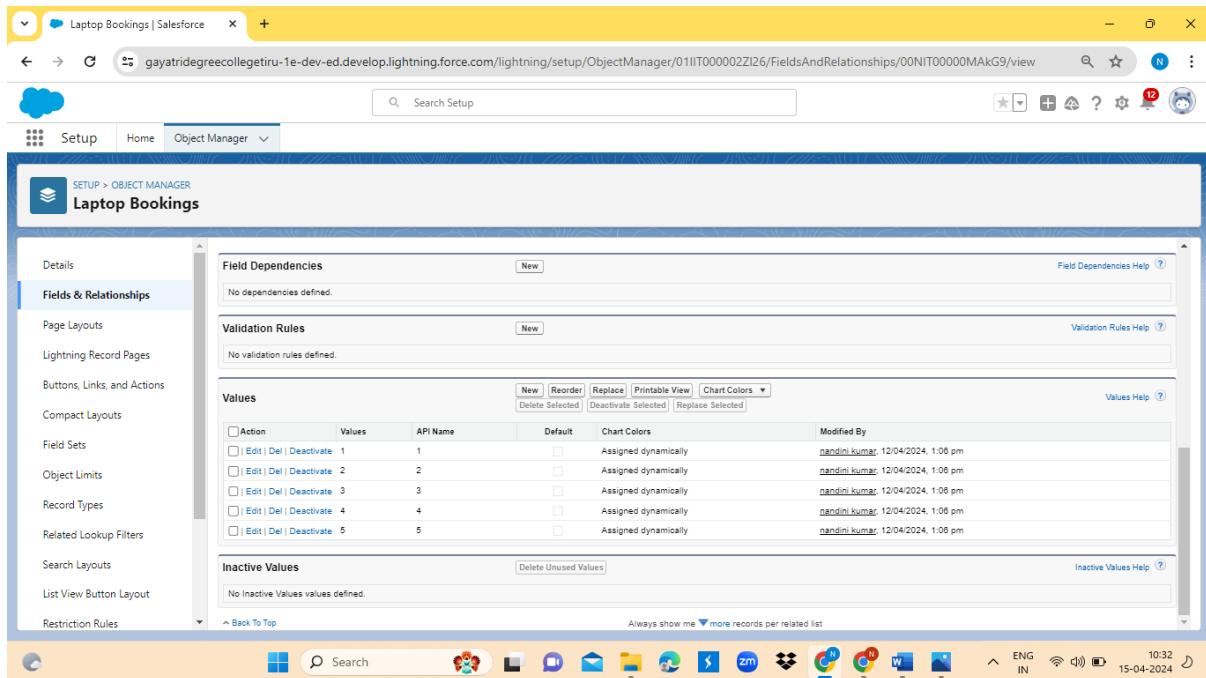
- Select the Decimal places as “0” and Click on Next
- Click on the Advanced Formula and Enter the value in formula box “ 50 - ” and Click on insert field than you will find a pop window under the Laptop Booking select the Total No Of Laptops in the second Column and select the Laptops delivered in the third column and click on insert
- “ 50 - Total_no_of_laptops__r.Laptops_delivered__c ” and Check Syntax



- Click on Next ? Next ? Save and new

To create fields in an object:

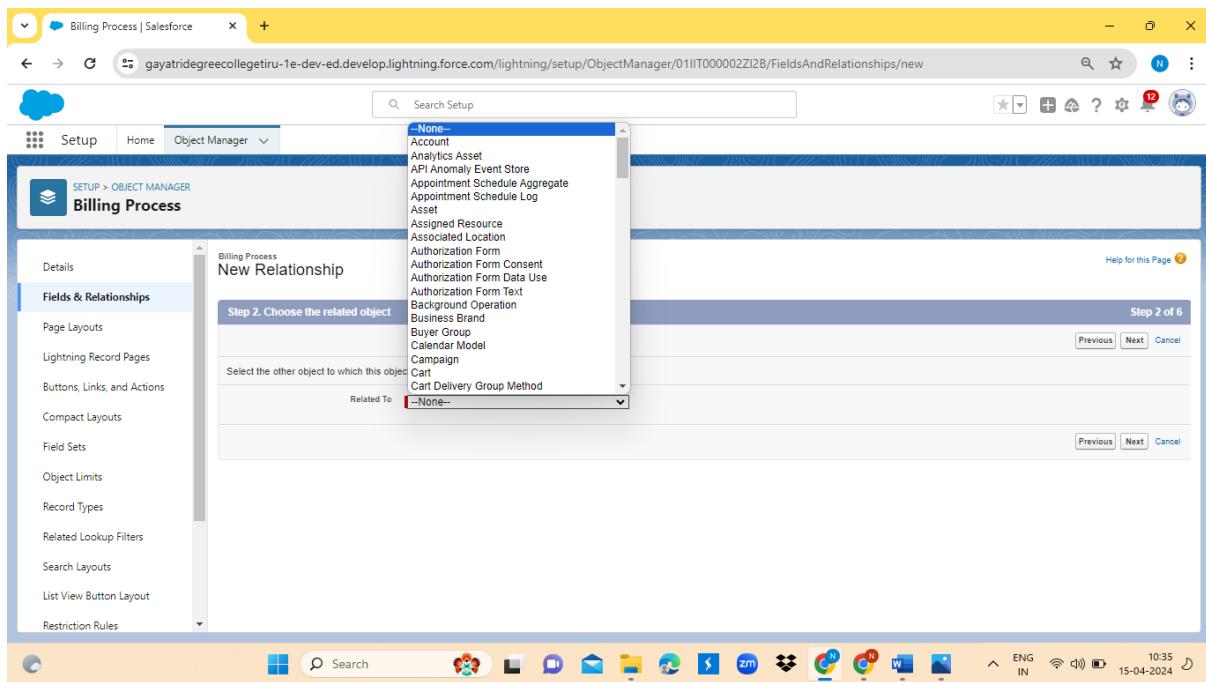
- 1.Go to setup - click on Object Manager - type object name(Laptop Booking) in the 2.search bar - click on the object.
- 3.Now click on “Fields & Relationships” -New
- 4.Select Data Type as a “picklist”
5. Picklist values are 1.2.3.4.5
6. Click and save it.



Creation Of Fields & Relationship For Billing Process Object

1. 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



7. Fill the Above as following:

- Change the Field Label: Name
- Field Name :It's gets auto generated
- Click on Next - Next - Save and new.

Fields & Relationships				
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount__c	Formula (Number)		
Billing Process	Name	Text(80)		
Created By	CreatedBy	Lookup(User)		
Laptop Booking	Laptop_Booking__c	Lookup(Laptop Bookings)		
Last Modified By	LastModifiedBy	Lookup(User)		
Name	Name__c	Master-Detail(consumer)		
Payment Mode	Payment_Mode__c	Picklist		

2. To create another 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 “Lookup Relationship”
4. Click on Next
5. Click on the Related to drop down and Select the Laptop Booking object and click on Next

1. Fill the Above as following:

- Change the Field Label: Laptop Booking
- Field Name :It's gets auto generated
- Click on Next - Next - Save and new.

The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes tabs for 'Setup', 'Home', and 'Object Manager'. The main title is 'Billing Process | Salesforce'. The search bar contains 'Search Setup'. The left sidebar lists various setup categories like 'Page Layouts', 'Buttons, Links, and Actions', and 'Field Sets'. The main content area displays the 'Custom Field Definition Detail' for a field named 'Laptop Booking'. The 'Field Information' section shows the field label as 'Laptop Booking', field name as 'Laptop_Booking', API name as 'Laptop_Booking__c', and data type as 'Lookup' (set to 'Billing Process'). The 'Lookup Options' section shows the related object as 'Billing Process' and the child relationship name as 'Billing_Process'. The status bar at the bottom shows the date as 15-04-2024 and time as 10:38 AM.

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. 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
 1. Cash
 2. Check
 3. Credit card
 4. Debit card
 5. UPI
 6. Phonepe
 7. Gpay
 8. Paytm
 - Select required
 - Click on Next - Next - Save and new.

Cross Object Formula Field:

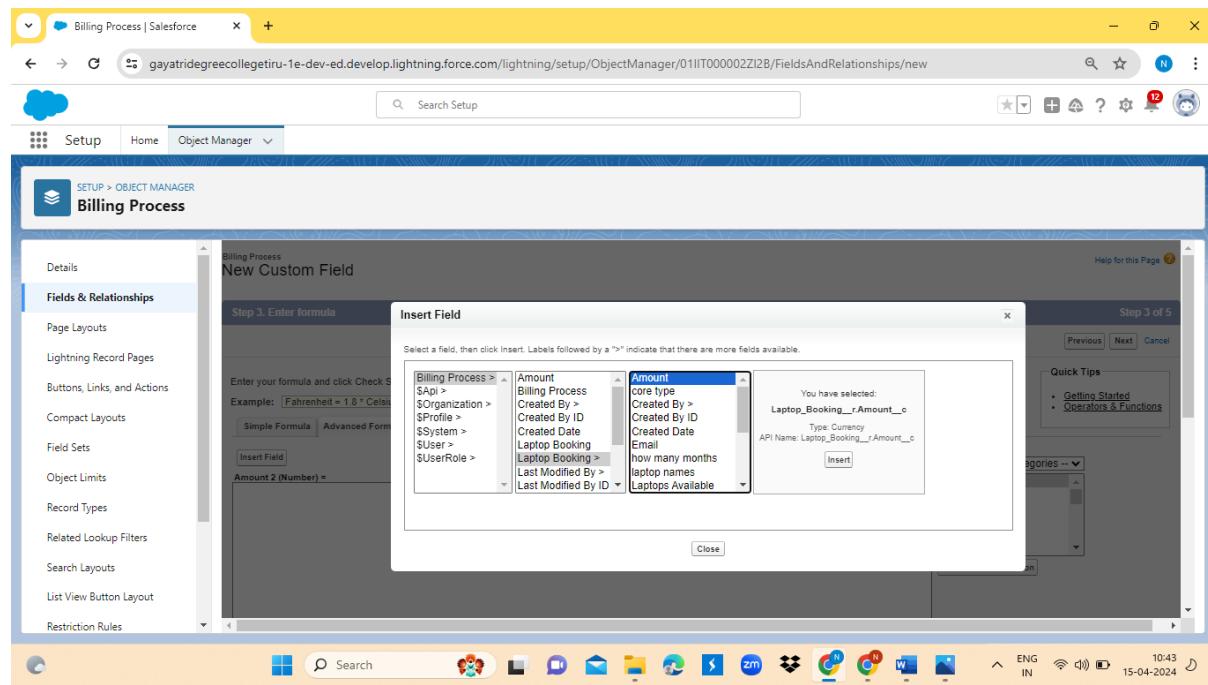
In Salesforce, a cross-object formula field allows you to create a formula that references fields from related objects. It enables you to perform calculations or display data from related records without the need for custom code or complex workflows.

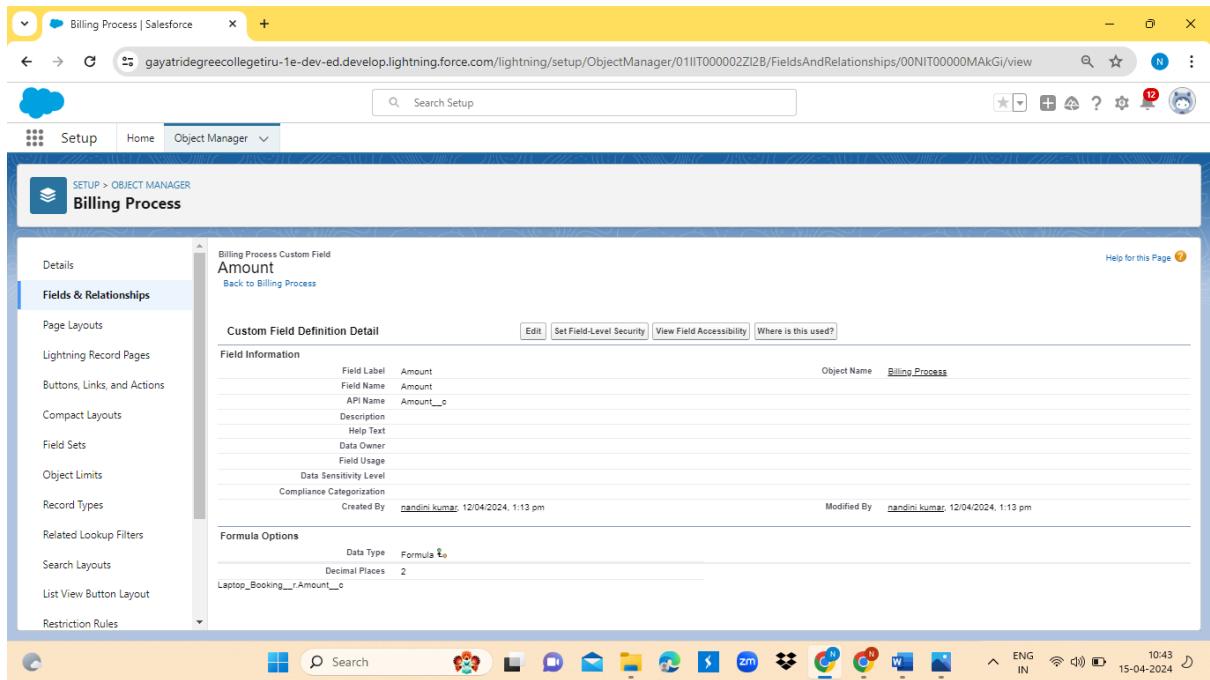
Why do we need to create the Cross Object Formula Field:

If we want to get the Particular field from another object in that case we will use the Cross object Formula field. For that First we need to create the relationship b/w two objects and relate the field with formula data type.

4. 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
9. Click on Next - Next - Save and new.
- 10.

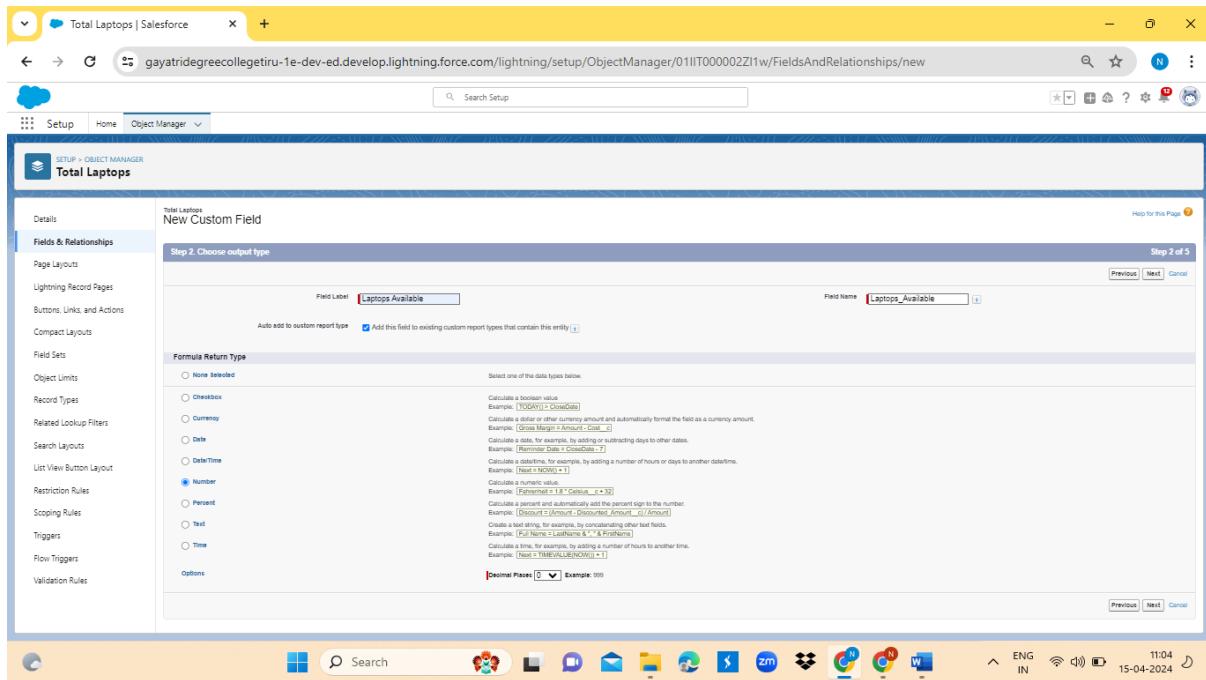




Creating The Field In Total Laptops Object

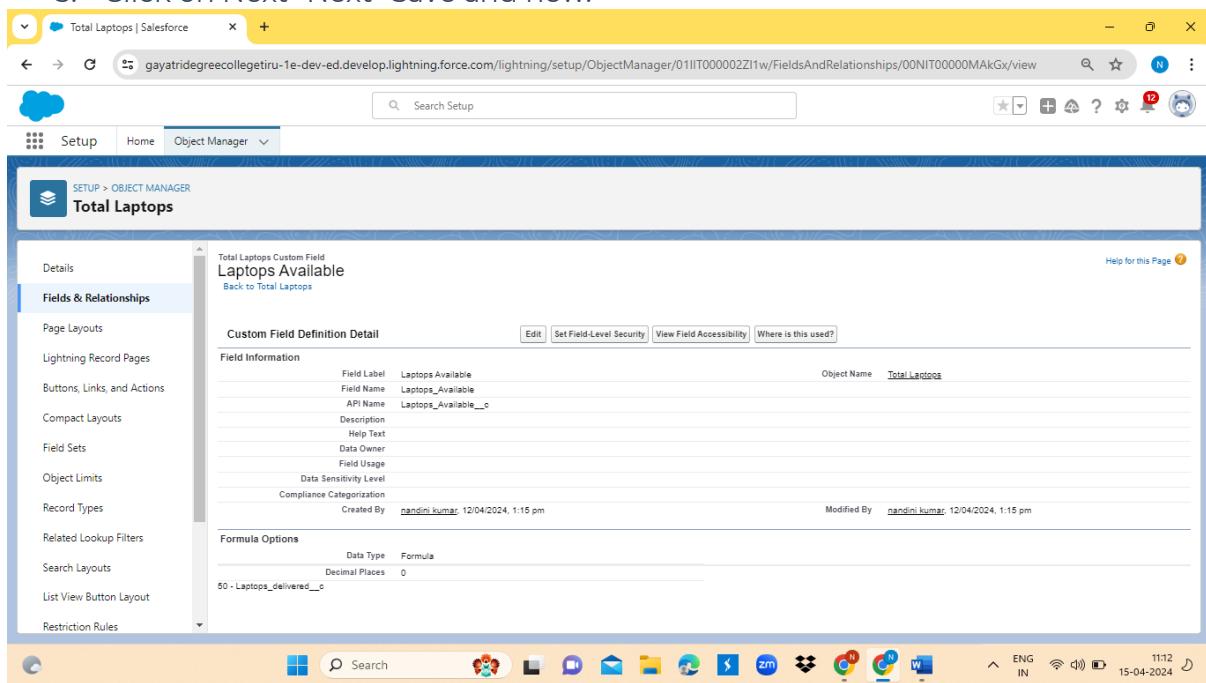
1. To create fields in an object:

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



Note: I am Considering “Total No Of Laptops = 50” While creating a new record in Total Laptops Object.

1. Click on the Advanced
2. Formula “50 - Laptops_delivered__c ” and Check Syntax
3. Click on Next -Next -Save and new.



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.

Creating the validation rule for phone number field in consumer object

1. Go to the setup page - click on object manager - From 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.

The screenshot shows the Salesforce Setup interface. The top navigation bar has tabs for 'Setup' (selected), 'Home', and 'Object Manager'. The URL in the address bar is 'consumer | Salesforce' and 'gayatridegreecollegeitiru-1e-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01IIT00000ZI21/ValidationRules/03dIT00000NF13YAC/view'. The main content area is titled 'consumer Validation Rule' and shows the 'Validation Rule Detail' for a rule named 'Phonenumberoremailblankrule'. The rule is active and has the formula 'OR(ISBLANK(Phone_number_c), ISBLANK(Email_c))'. The error message is 'please fill the phone number and email id'. The description is 'Created By nandini kumar, 12/04/2024, 1:19 pm'. The right side of the screen shows standard Salesforce navigation icons and a status bar at the bottom indicating 'ENG IN' and the date '15-04-2024'.

6. Save the validation rule.

MILESTONE -05 : CREATION OF PROFILES

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. You can define profiles by the user's job function. For example System Administrator, Developer, Sales Representative.

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.

The screenshot shows the Salesforce Setup Profiles page. The profile 'OWNER' is selected. Key details include:

- User License:** Salesforce
- Custom Profile:** Enabled
- Page Layouts:**
 - Global: Global Layout [View Assignment]
 - Email Application: Not Assigned [View Assignment]
 - Home Page Layout: DE Default [View Assignment]
 - Account: Account Layout [View Assignment]
 - Alternative Payment Method: Alternative Payment Method Layout [View Assignment]
- Location Group Assignment:**
 - Location Group: Location_Group_Layout [View Assignment]
 - Macro: Macro Layout [View Assignment]
 - Object Milestone: Object_Milestone_Layout [View Assignment]
 - Operating Hours: Operating_Hours_Layout [View Assignment]

3. 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.

The screenshot shows the Salesforce Setup Profiles page with the 'OWNER' profile selected. The 'Custom Object Permissions' section includes:

Object	Basic Access						Data Administration					
	Read	Create	Edit	Delete	View All	Modify All	Read	Create	Edit	Delete	View All	Modify All
Billing Process	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓
consumers	✓	□	✓	✓	✓	✓			✓	✓	✓	✓
Laptop Bookings	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Total Laptops	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

3. Give Access and Save it.

Agent Profile

1. Go to setup - type profiles in 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.

The screenshot shows the Salesforce Setup interface under the Profiles tab. The 'Custom Object Permissions' section is expanded, showing the following access levels:

Object	Billing Process				Laptop Bookings				Total Laptops			
	Read	Create	Edit	Delete	Read	Create	Edit	Delete	Read	Create	Edit	Delete
Billing Process	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
consumers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

4.Give access and save it.

MILESTONE- 06: creation of ROLES AND HIERARCY

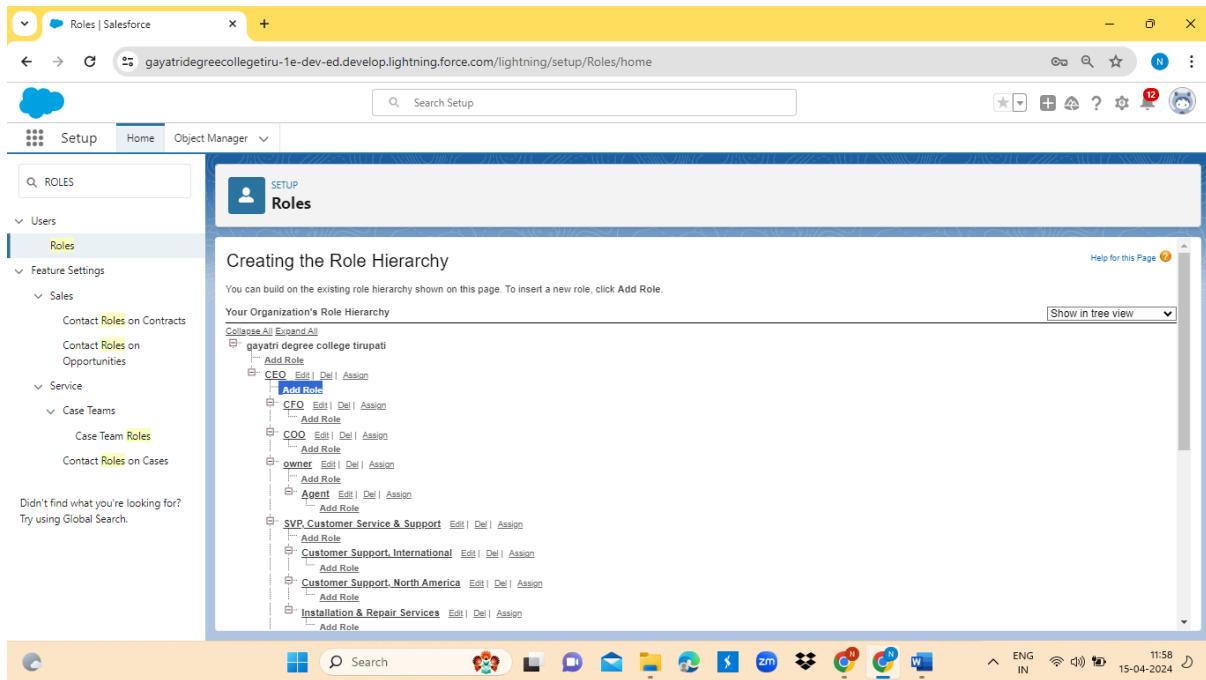
A role in Salesforce defines a user's visibility access at the record level. Roles may be used to specify the types of access that people in your Salesforce organization can have to data. Simply put, it describes what a user could see within the Salesforce organization.

Creating Owner Role

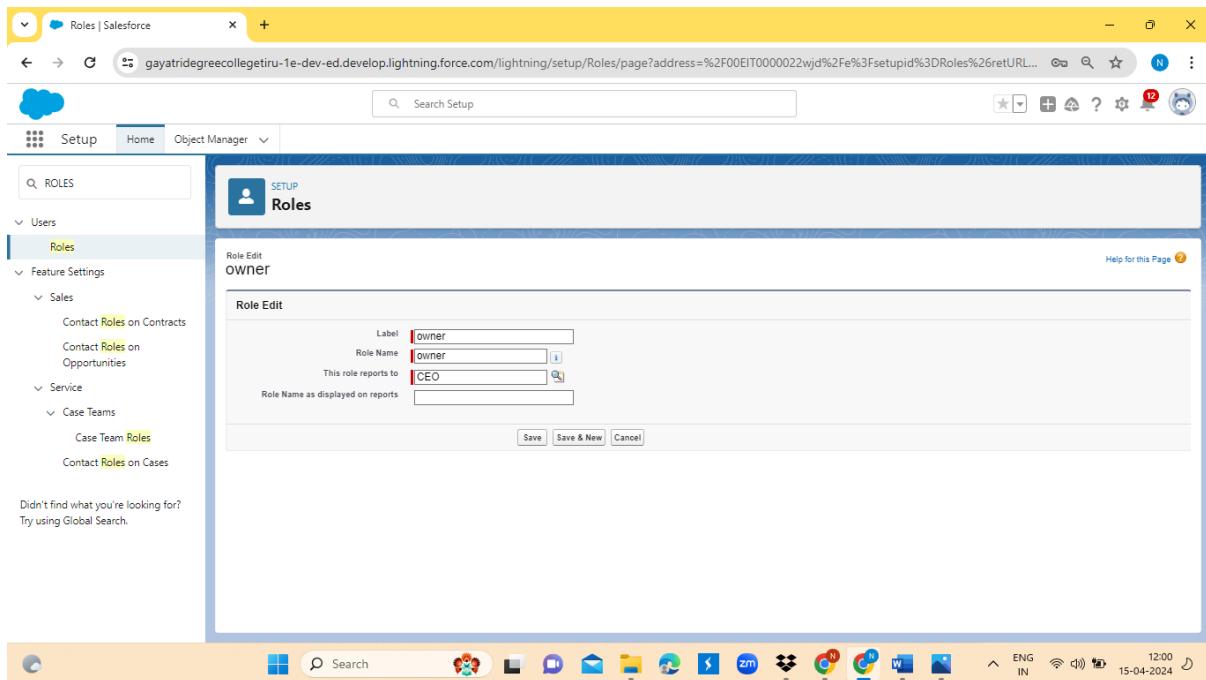
Creating owner Role:

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.

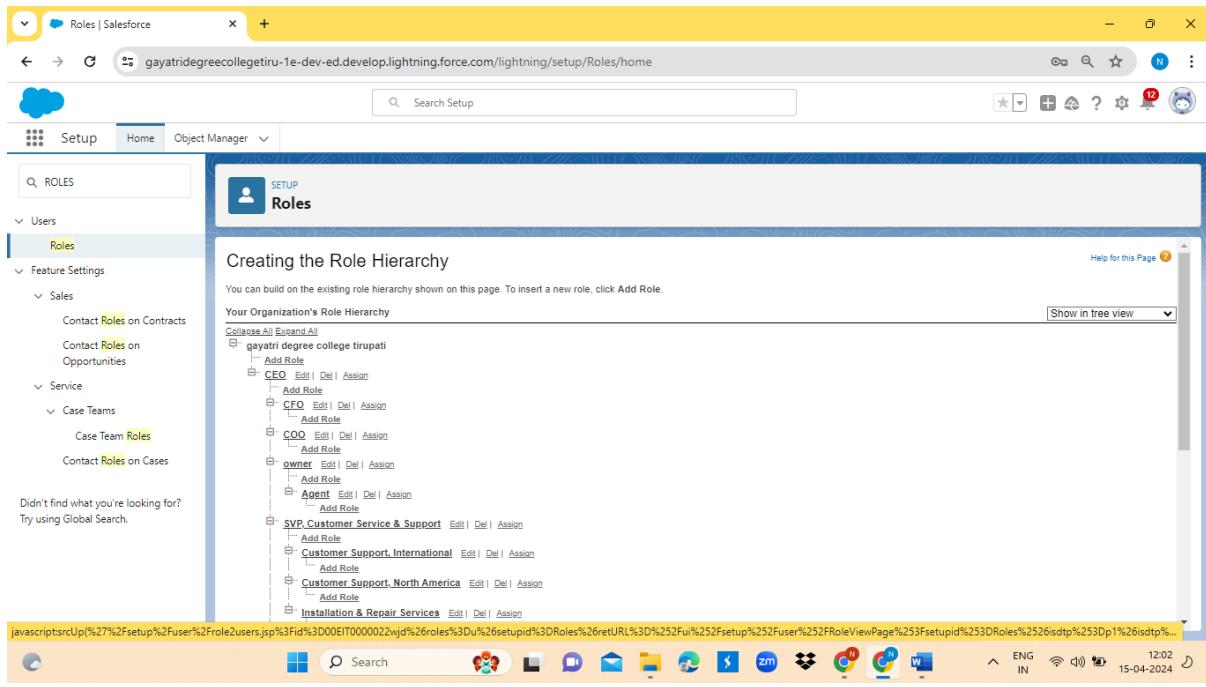


2. Click and save it.

Activity 2: Creating Agent roles

Creating another two roles under manager

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.



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

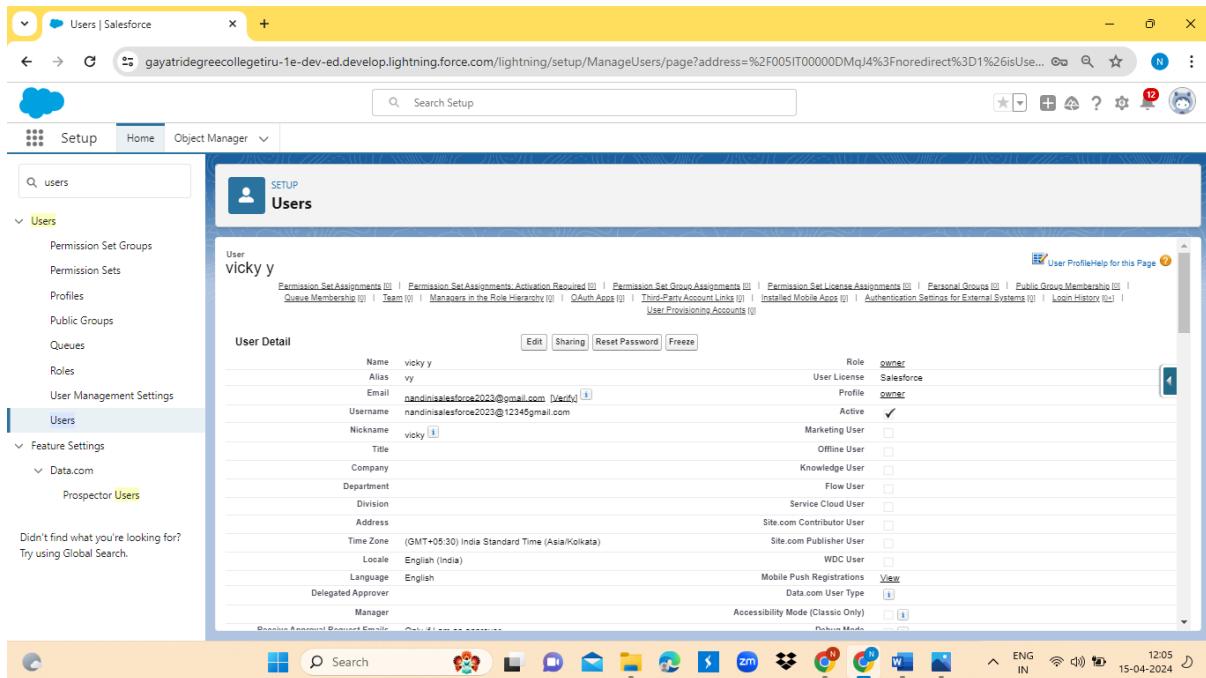
MILESTONE-07: creation of users

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 : vicky
 4. Last Name : y
 5. Alias : Give a 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.

Save it.



Activity 2: creating another users

1. Go to setup -type users in quick find box - select users -click New user.
2. Fill in the fields
 3. First Name : ram
 4. Last Name : ram
 5. Alias : Give a 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.
12. Save it.

The screenshot shows the Salesforce Setup interface with the 'Users' page open. The user 'ram ram' is selected, showing their details such as Name, Alias, Email, Username, Nickname, Title, Company, Department, Division, Address, Time Zone, Locale, Language, Delegated Approver, and Manager. The 'Role' section indicates they are a 'Standard Platform User'. The sidebar on the left includes sections for Permission Set Groups, Profiles, Public Groups, Queues, Roles, User Management Settings, and a prominent 'Users' section which is currently selected.

MILESTONE – 08: CREATION OF 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.

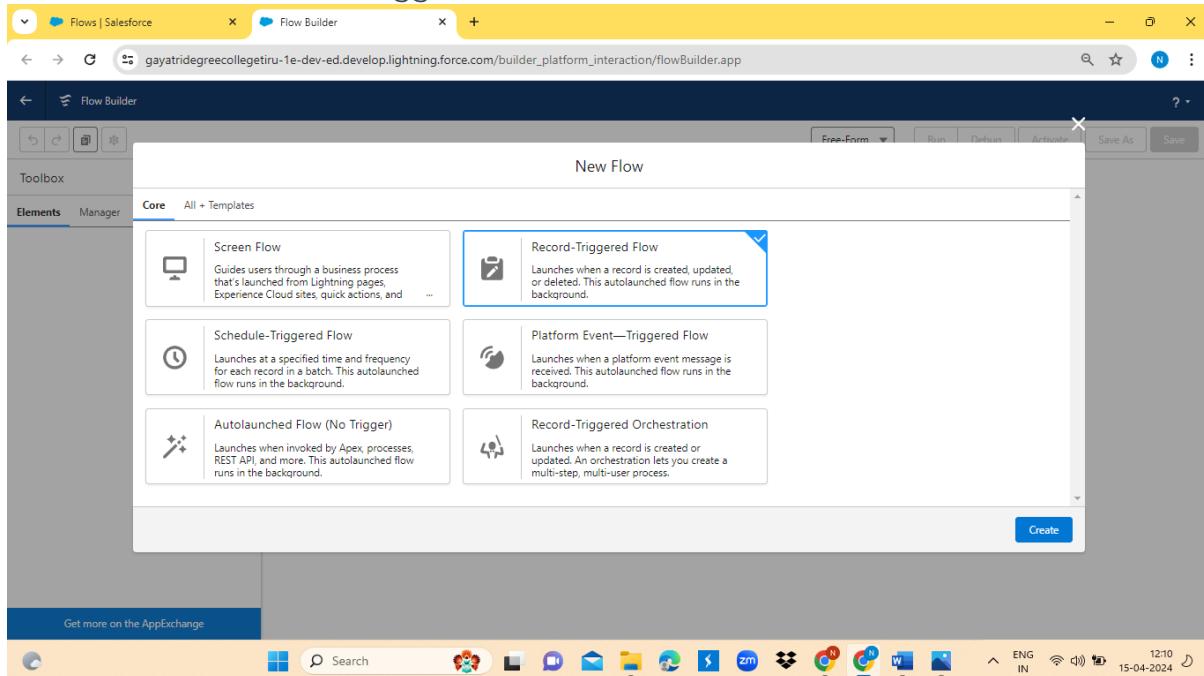
Create A Flow On Dell Laptop

Activity -

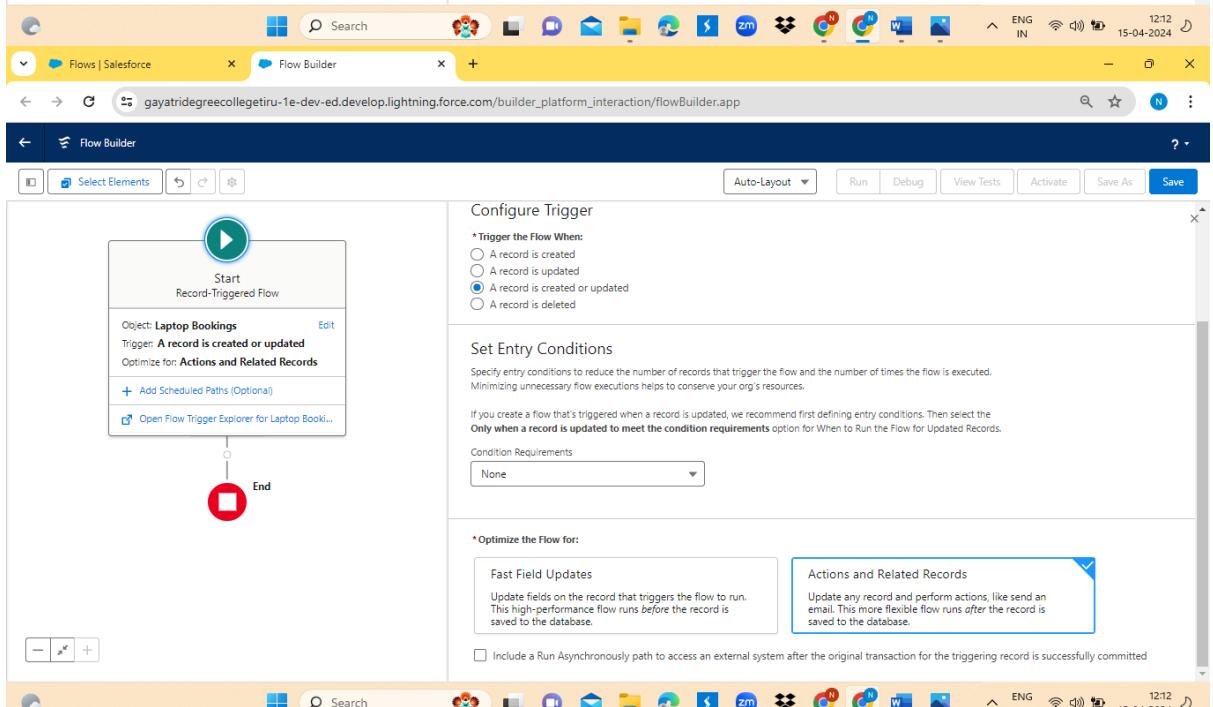
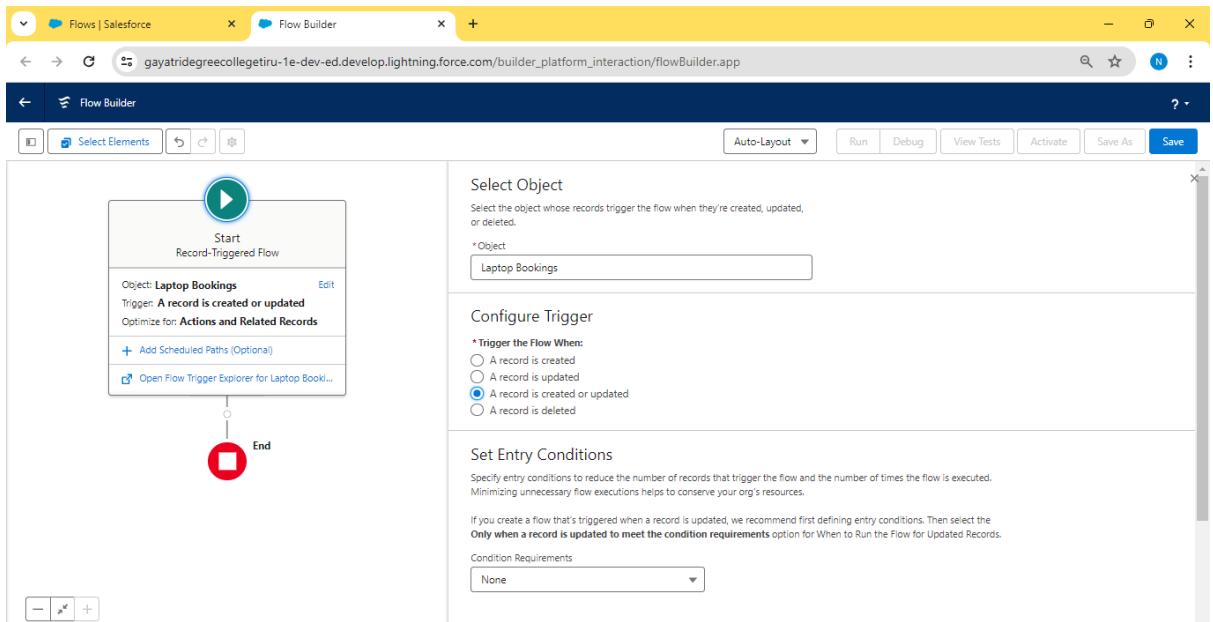
1. Go to setup -type Flow in quick find box - Click on the Flow and Select the New Flow.

The screenshot shows the Salesforce Setup interface with the 'Flows' page open. The 'Process Automation' section is expanded, showing the 'Flows' category. The 'Flow Definitions' section displays a list of flows, including 'Basic Approval Request', 'Book Appointment from Invitation', 'Cancel Item Flow', 'Change Case Owner to Incident Owner', 'Close Change Request & Related Issues', 'CMS: Check Whether Any Step is Completed', 'CMS: Notify Content Author', 'CMS: Review Content', 'CMS: Submit Content for Review', 'CMS: Withdraw Review Request', and 'Create a Case'. The 'Flow Trigger Explorer' and 'New Flow' buttons are visible at the top right of the page.

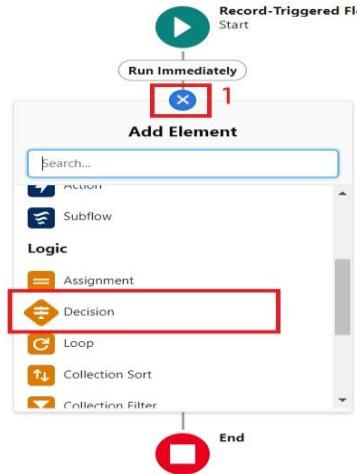
2. Select the Record-triggered flow and Click on Create.



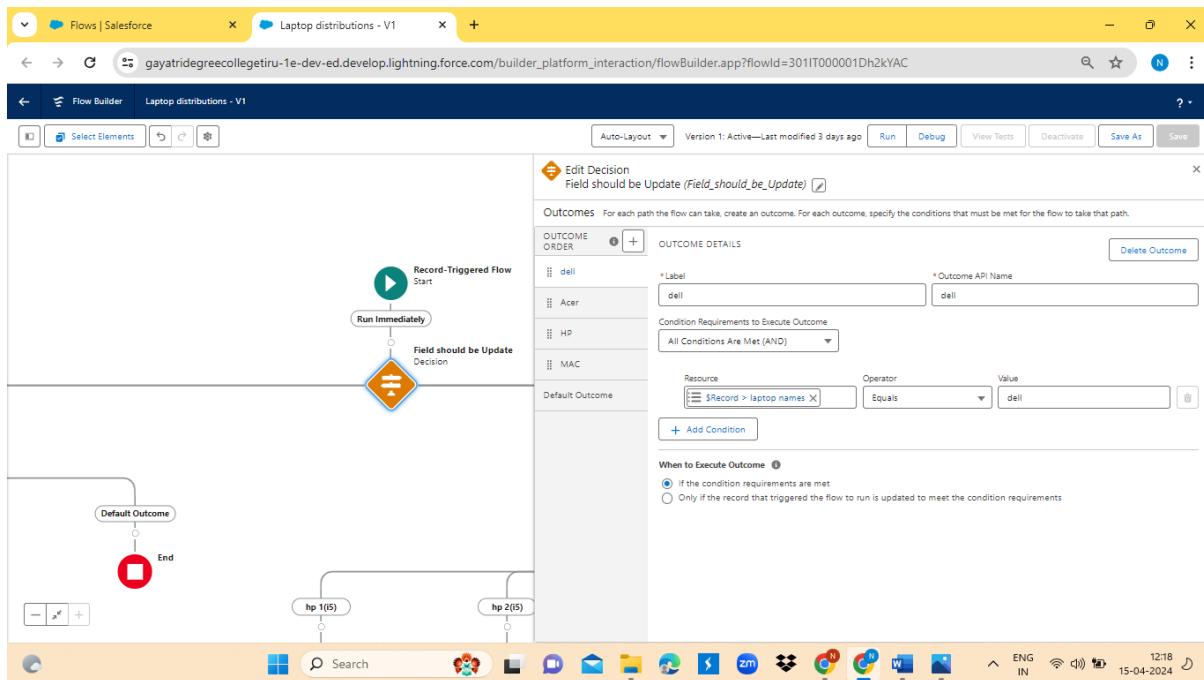
3. Select the Object as a Laptop Booking in the Drop down list.
4. Select the Trigger Flow when: "A record is Created or Updated".
5. Select the Optimize the flow for: "Actions and Related Records" and Click on Done.



6. Under the Record-triggered Flow Click on “+” Symbol and In the Drop down List select the “Decision Element”.



7. Enter the Details Label: Field should be Update, API name: Gets Automatically Generated.
8. Enter the Outcome Details Label: dell , Outcome API name: Gets Automatically Generated.
 - Resource: Select Record.Laptop booking__c.
 - Operator: Select Equals.
 - Value: Select dell
 - Add the same outcome order to acer , hp,mac.
 - Click done.



9. Go to flow page
11. Beside dell there is a symbol '+' click on that.
12. Again select decision
13. Enter the Details Label: Field should Update(any one u want), API name: Gets Automatically Generated.

14. select the Outcome Details Label: dell core i3 , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.core type.
- Operator: Select Equals.
- Value: Select core i3.
- Then again click the symbol '+' outcome details

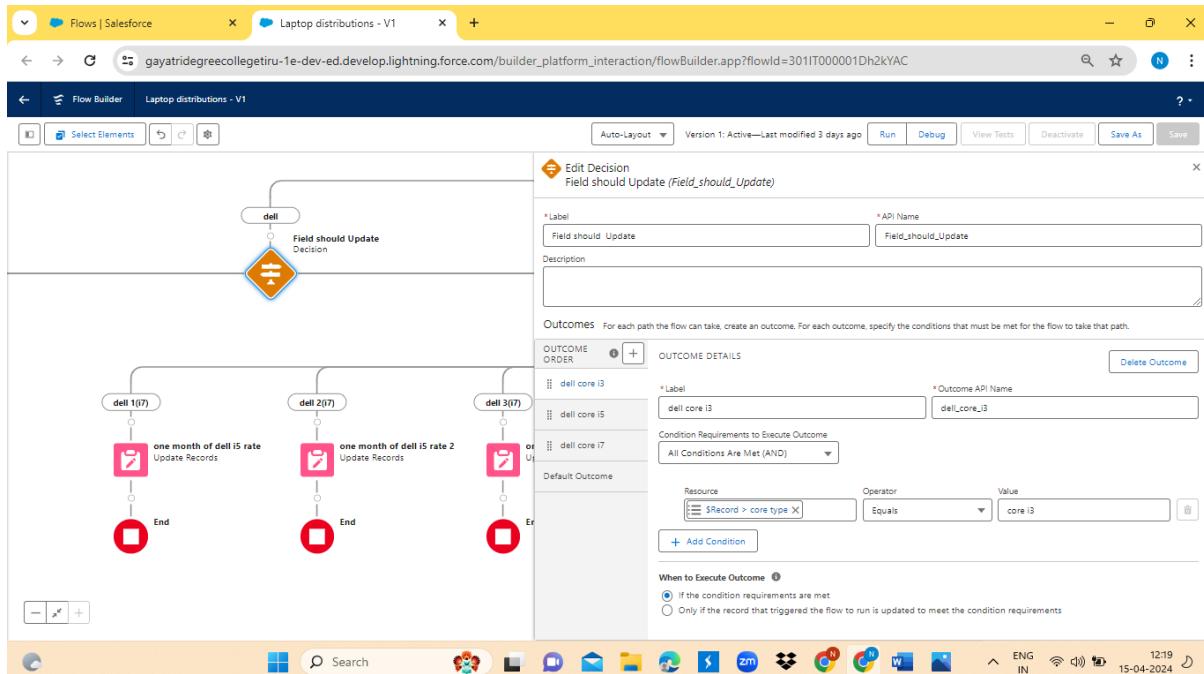
15. select the Outcome '+' Details Label: dell core i5 , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.core type.
- Operator: Select Equals.
- Value: Select core i5.
- Then again click the symbol '+' outcome details

16. Enter the Outcome Details Label: dell core i7 , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.core type.
- Operator: Select Equals.
- Value: Select core i7.

17. Click done.



17. So go to the flow page select '+' after core i3 then again select the decision.

18. Enter the Details Label: months selected , API name: Gets Automatically Generated.

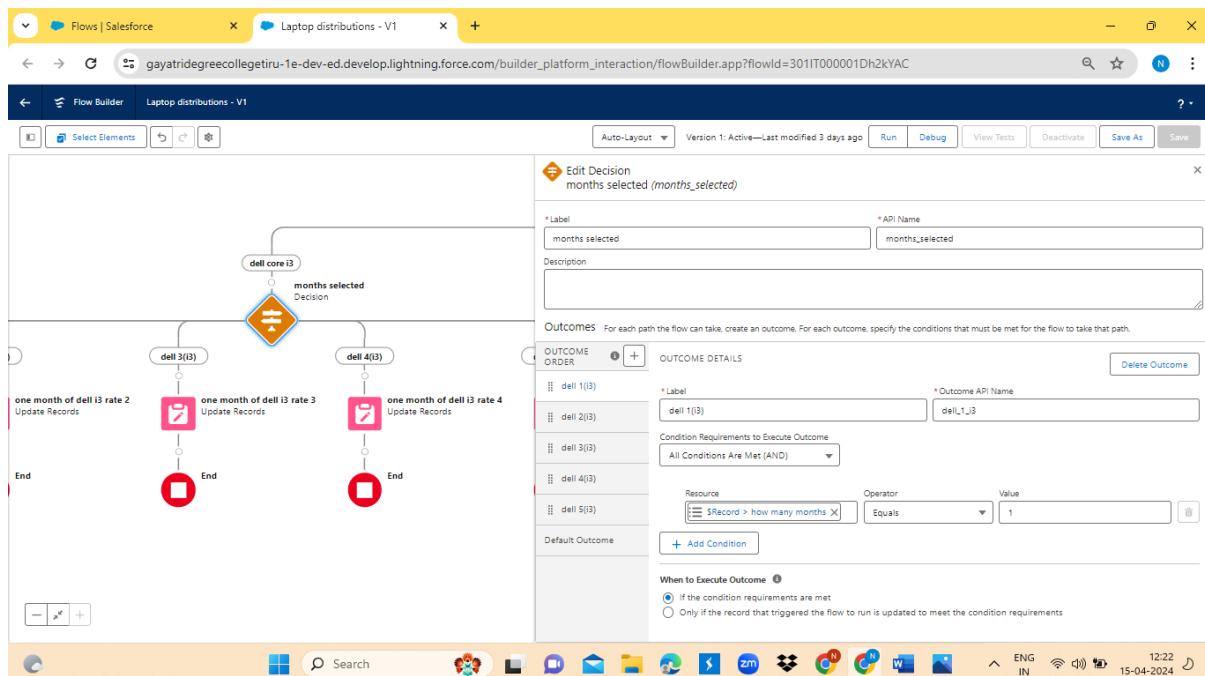
19. Enter the Outcome Details Label: dell 1(i3) , Outcome API name: Gets Automatically Generated.

20.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: 1.

23. Enter the Outcome Details Label: dell 2(i3) , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.how many months.
 - Operator: Select Equals.
 - Value: Select 2..
24. Click '+' outcome details
25. Enter the Outcome Details Label: dell 3(i3) , Outcome API name: Gets Automatically Generated.
- Resource: Select Record.how many months.
 - Operator: Select Equals.
 - Value: Select 3..
26. Click '+' outcome details
27. Enter the Outcome Details Label: dell 4(i3) , Outcome API name: Gets Automatically Generated.
- Resource: Select Record.how many months.
 - Operator: Select Equals.
 - Value: Select 4..
28. Click '+' outcome details
29. Enter the Outcome Details Label: dell 5(i3) , Outcome API name: Gets Automatically Generated.
- Resource: Select Record.how many months.
 - Operator: Select Equals.
 - Value: Select 4..



30. Follow the above picture you will understand.
31. After dell 1(i3) there is '+' symbol like dell 2(i3),dell 3(i3),dell 4(i3),dell 5(i3).
32. Click on '+' then select update records
33. Enter the Details Label: one month of dell i3 rate , API name: Gets Automatically Generated.
34. Field:- Amount__c , value:- for dell 1(i3)-1000, dell 2(i3)-2000, dell 3(i3)-3000, dell 4(i3)-4000, dell 5(i3)-5000. Follow for all these finally
35. Click done.

37. Enter the Details Label: months selected , API name: Gets Automatically Generated.

38. Enter the Outcome Details Label: dell 1(i7) , Outcome API name: Gets Automatically Generated.

39.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: 1.

40. Enter the Outcome Details Label: dell 2(i7) , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: Select 2..

41. Click '+' outcome details

42. Enter the Outcome Details Label: dell 3(i7) , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: Select 3..

43. Click '+' outcome details

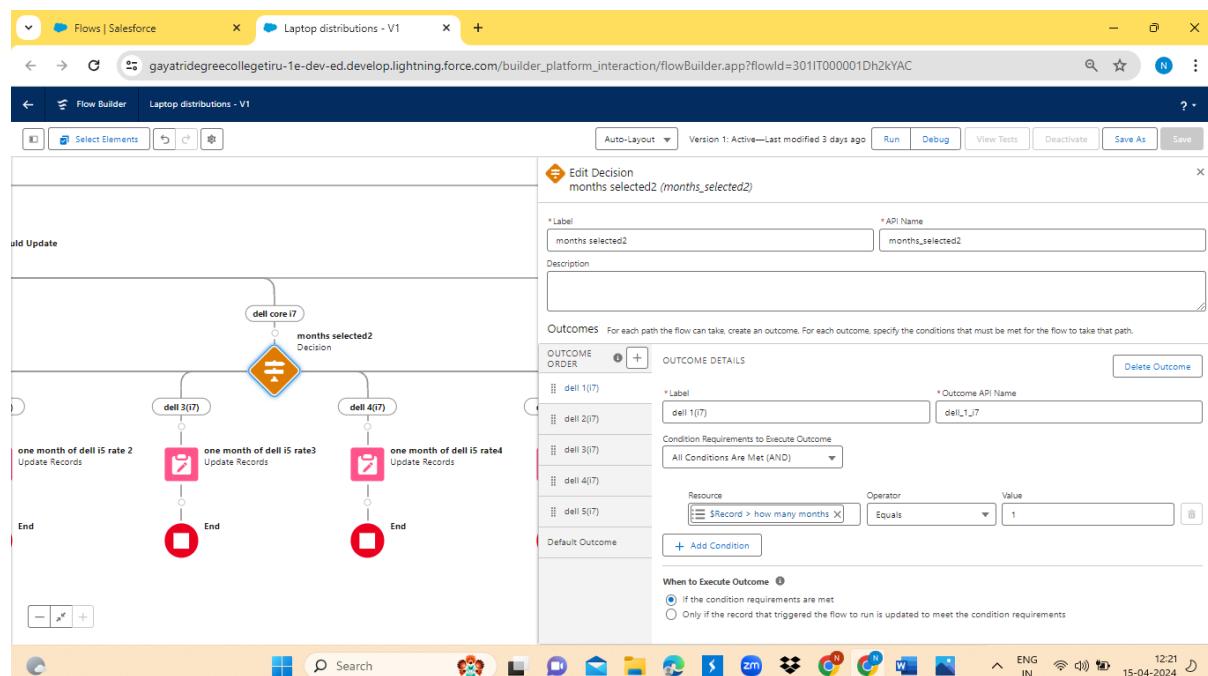
44. Enter the Outcome Details Label: dell 4(i7) , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: Select 4.

45. Click '+' outcome details

46. Enter the Outcome Details Label: dell 5(i7) , Outcome API name: Gets Automatically Generated.

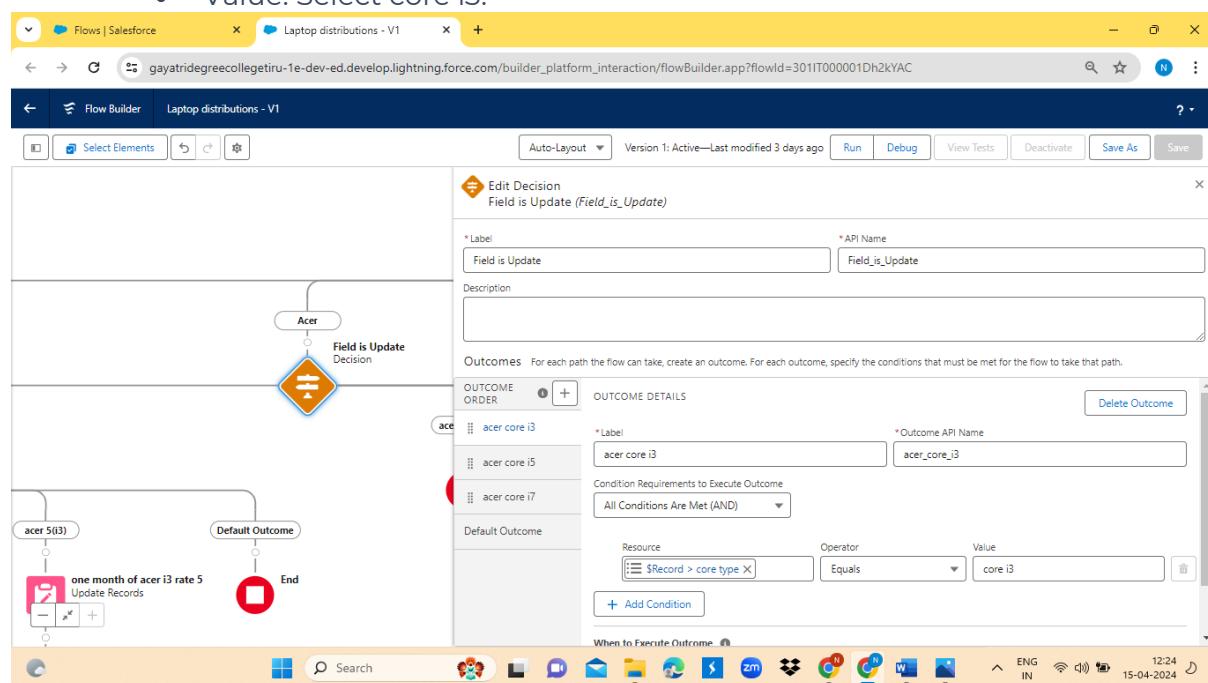
- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: Select 5.



47. Follow the above picture you will understand.
48. After dell 1(i7) there is '+' symbol like dell 2(i7),dell 3(i7),dell 4(i7),dell 5(i7).
49. Click on '+' then select update records
50. Enter the Details Label: one month of dell i5 rate , API name: Gets Automatically Generated.
51. Field:- Amount__c , value:- for dell 1(i7)-2000, dell 2(i7)-4000, dell 3(i7)-6000, dell 4(i7)-8000, dell 5(i7)-10000. Follow for all these finally
52. Click done.

Creating Flow On Acer Laptop

1. Go to flow page
2. Beside acer there is a symbol '+' click on that.
3. Again select decision
4. Enter the Details Label: Field is Update, API name: Gets Automatically Generated.
5. select the Outcome Details Label: acer core i3 , Outcome API name: Gets Automatically Generated.
 - Resource: Select Record.core type.
 - Operator: Select Equals.
 - Value: Select core i3.



Click done.

6. Go to flow page
7. Beside dell there is a symbol '+' click on that.
8. Again select decision

9. Enter the Details Label: months selected , API name: Gets Automatically Generated.

10. Enter the Outcome Details Label: acer 1(i3) , Outcome API name: Gets Automatically Generated.

11.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: 1.

12. Enter the Outcome Details Label: acer 2(i3) , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: Select 2..

13. Click '+' outcome details

14. Enter the Outcome Details Label: acer 3(i3) , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: Select 3..

15. Click '+' outcome details

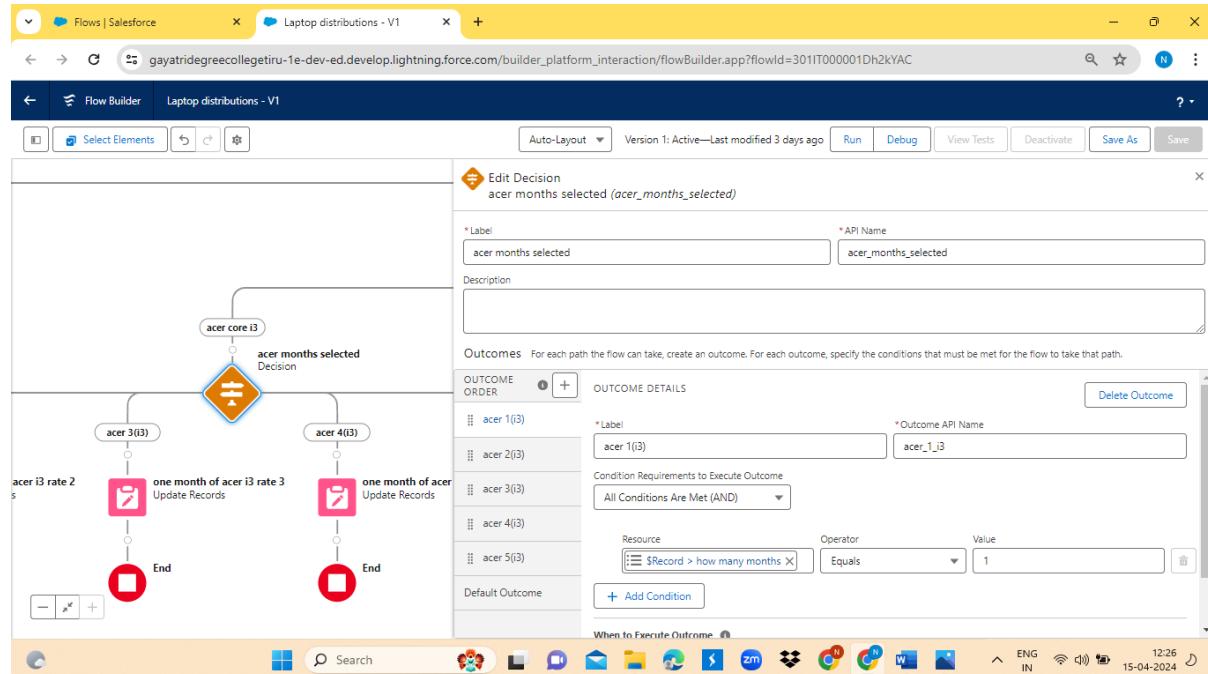
16. Enter the Outcome Details Label: acer 4(i3) , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: Select 4.

17. Click '+' outcome details

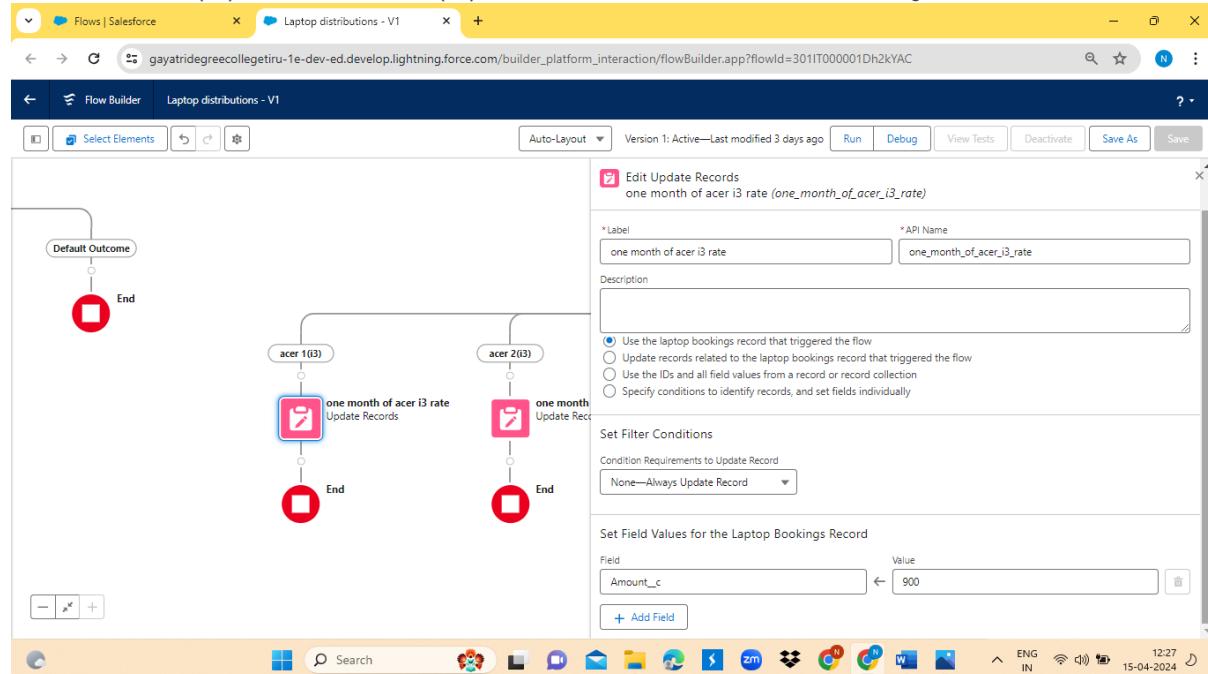
18. Enter the Outcome Details Label: acer 5(i3) , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: Select 5.



Click done.

19. After acer 1(i3) there is '+' symbol like acer 2(i3),acer 3(i3),acer 4(i3),acer 5(i3).
20. Click on '+' then select update records
21. Enter the Details Label: one month of acer i3 rate , API name: Gets Automatically Generated.
22. Field:- Amount__c , value:- for acer 1(i3)-900, acer 2(i3)-1800, acer 3(i3)-2700, acer 4(i3)-3600, acer 5(i3)-4800. Follow for all these finally



23.Click done.

Creating A Flow On Hp Laptop

1. Go to flow page
2. Beside hp there is a symbol '+' click on that.
3. Again select decision
4. Enter the Details Label: Field is Update, API name: Gets Automatically Generated.
5. select the Outcome Details Label: hp core i5 , Outcome API name: Gets Automatically Generated.
 - Resource: Select Record.core type.
 - Operator: Select Equals.
 - Value: Select hp i5.
6. Go to flow page
7. Beside hp there is a symbol '+' click on that.
8. Again select decision

9. Enter the Details Label: hp field should be updated , API name: Gets Automatically Generated.

10. Enter the Outcome Details Label: hp 1(i5) , Outcome API name: Gets Automatically Generated.

11.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: 1.

12. Enter the Outcome Details Label: hp 2(i5) , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: Select 2..

13. Click '+' outcome details

14. Enter the Outcome Details Label: hp 3(i5) , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: Select 3..

15. Click '+' outcome details

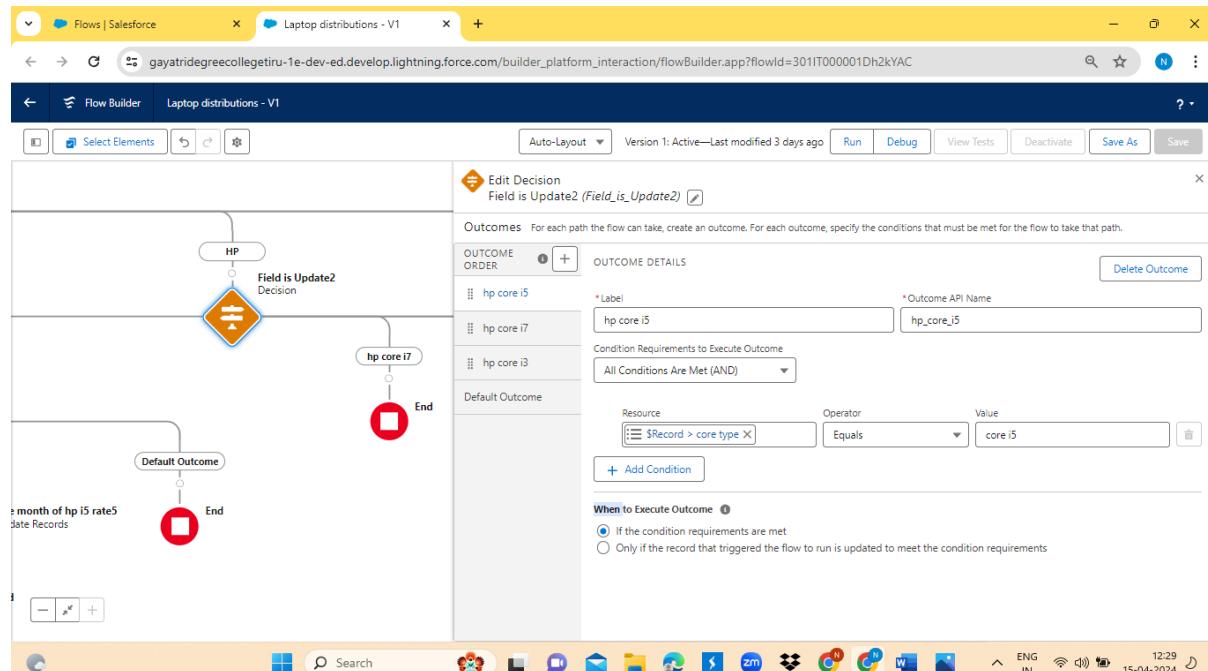
16. Enter the Outcome Details Label: hp 4(i5) , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: Select 4.

17. Click '+' outcome details

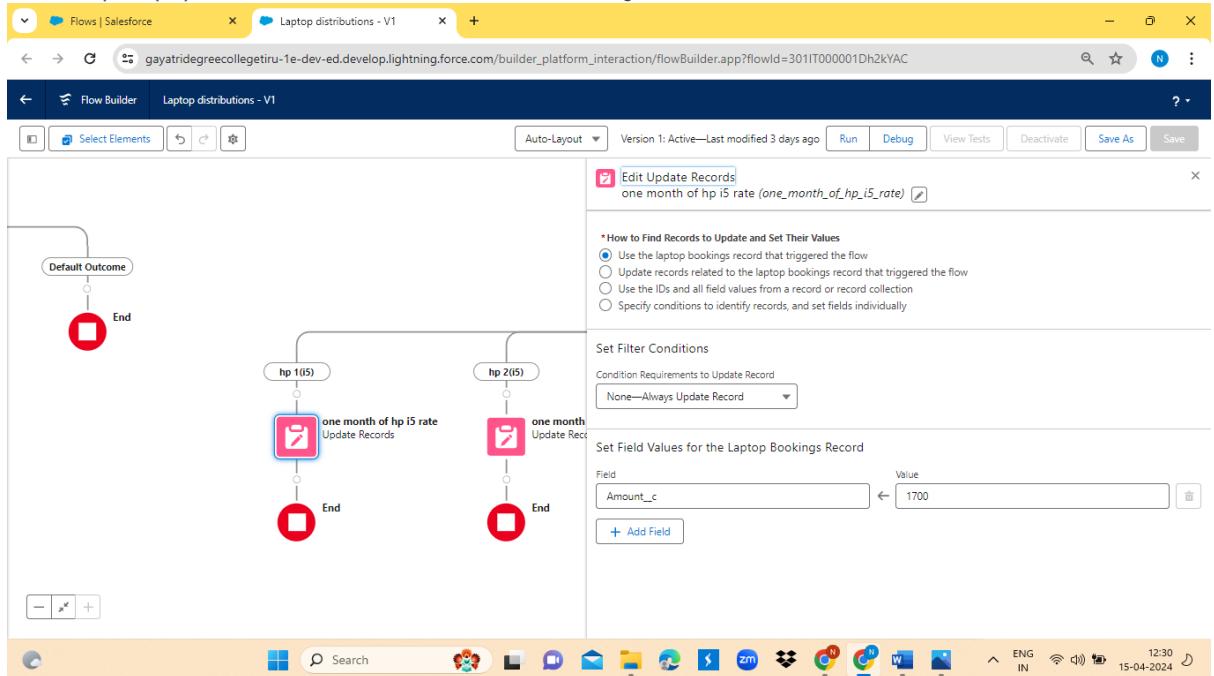
18. Enter the Outcome Details Label: hp 5(i5) , Outcome API name: Gets Automatically Generated.

- Resource: Select Record.how many months.
- Operator: Select Equals.
- Value: Select 5.



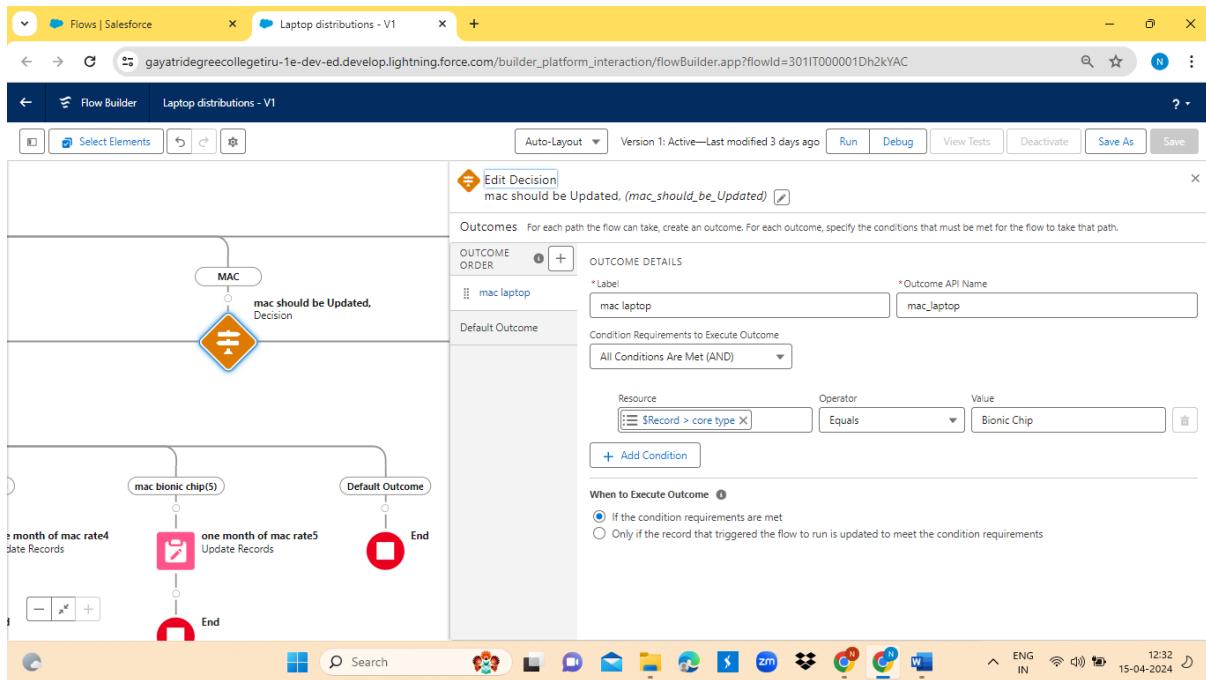
Click on done.

19. After hp 1(i5) there is '+' symbol like hp 2(i5), hp 3(i5), hp 4(i5),hp 5(i5).
20. Click on '+' then select update records
21. Enter the Details Label: one month of hp i5 rate , API name: Gets Automatically Generated.
22. Field:- Amount__c , value:- for hp 1(i5)-1700, hp 2(i5)-3400, hp 3(i5)-5100, hp 4(i5)-6800, hp 5(i5)-8500. Follow for all these finally



Creating A Flow On Mac Laptop

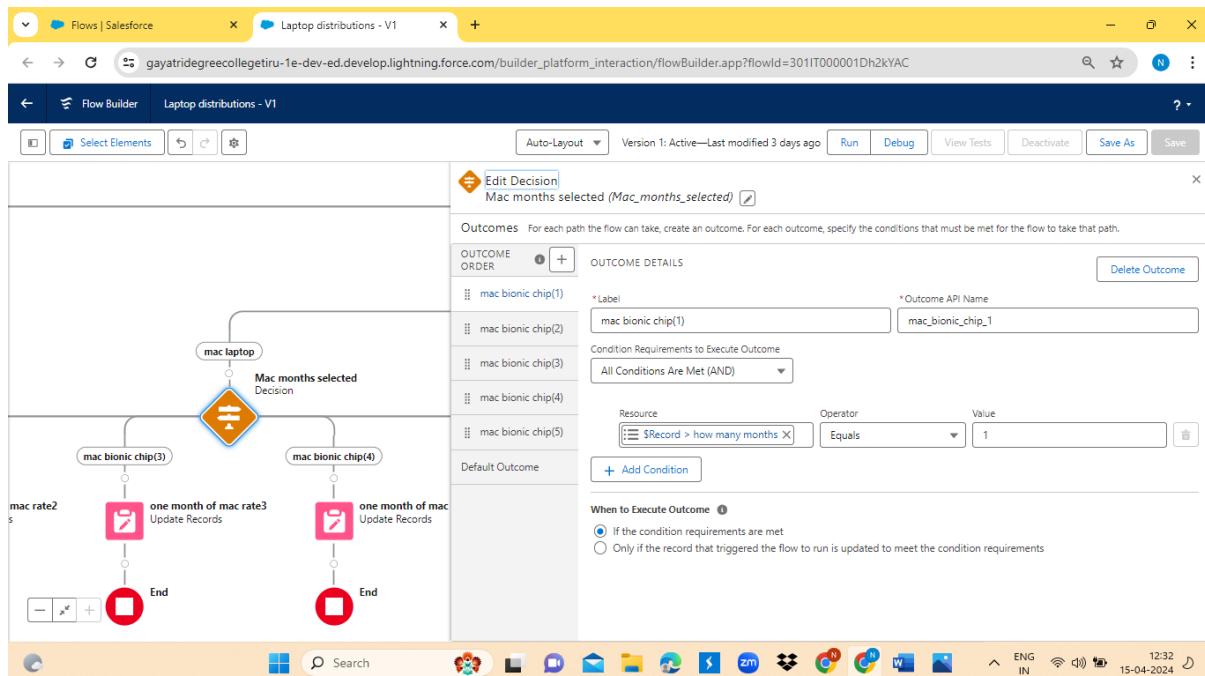
1. Go to flow page
2. Beside mac there is a symbol '+' click on that.
3. Again select decision
4. Enter the Details Label: mac should be Updated, API name: Gets Automatically Generated.
5. select the Outcome Details Label: mac laptop , Outcome API name: Gets Automatically Generated.
 - Resource: Select Record.core type.
 - Operator: Select Equals.
 - Value: Select Bionic Chip.



Click done.

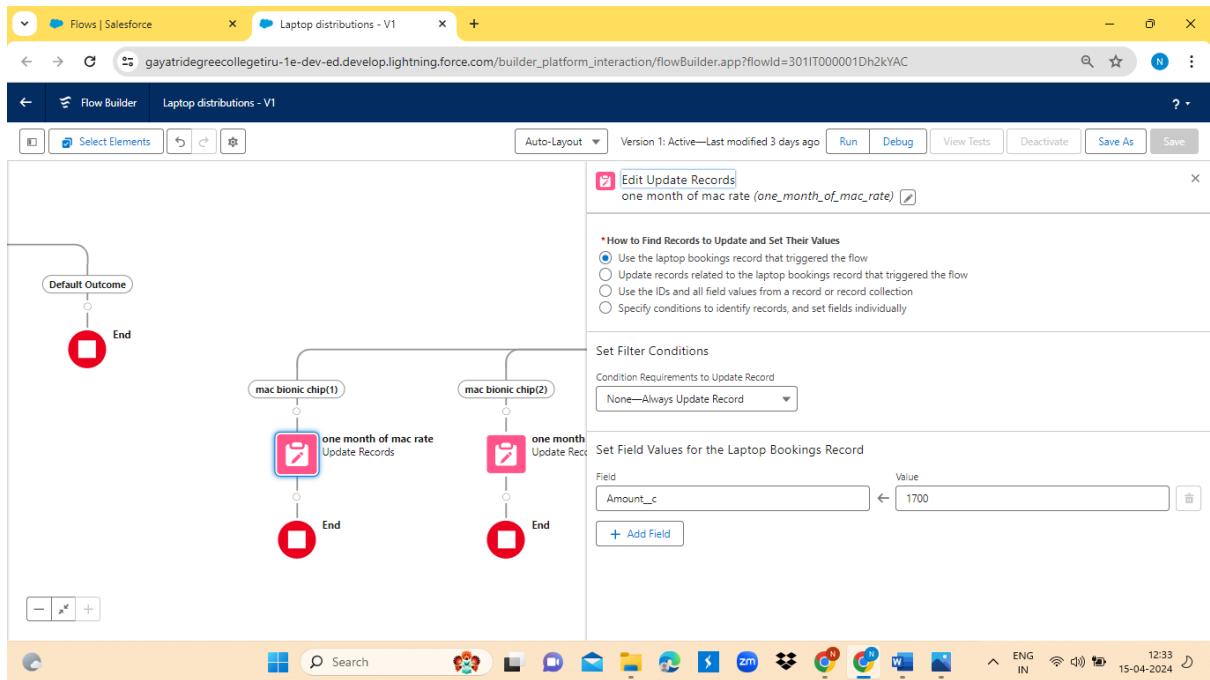
6. Go to flow page
7. Beside Mac there is a symbol '+' click on that.
8. Again select decision
9. Enter the Details Label:Mac months selected , API name: Gets Automatically Generated.
10. Enter the Outcome Details Label: mac bionic chip(1) , Outcome API name: Gets Automatically Generated.
11.
 - Resource: Select Record.how many months.
 - Operator: Select Equals.
 - Value: 1.
12. Enter the Outcome Details Label: mac bionic chip(1) , Outcome API name: Gets Automatically Generated.
 - Resource: Select Record.how many months.
 - Operator: Select Equals.
 - Value: Select 2..
13. Click ‘+’ outcome details
14. Enter the Outcome Details Label: mac bionic chip(1) , Outcome API name: Gets Automatically Generated.
 - Resource: Select Record.how many months.
 - Operator: Select Equals.
 - Value: Select 3..
15. Click ‘+’ outcome details
16. Enter the Outcome Details Label: mac bionic chip(1) , Outcome API name: Gets Automatically Generated.
 - Resource: Select Record.how many months.
 - Operator: Select Equals.

- Value: Select 4.
17. Click '+' outcome details
18. Enter the Outcome Details Label: mac bionic chip(1) , Outcome API name: Gets Automatically Generated.
- Resource: Select Record.how many months.
 - Operator: Select Equals.
 - Value: Select 5.



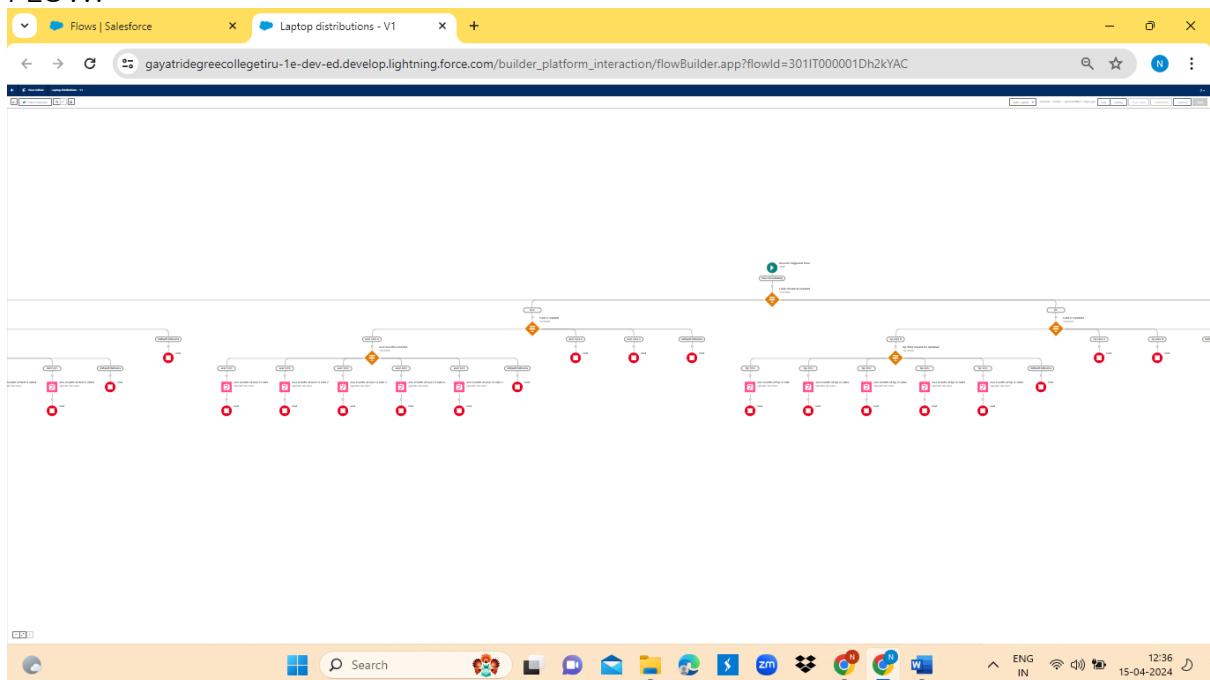
Click done.

19. After mac bionic chip(1) there is '+' symbol like mac bionic chip(2), mac bionic chip(3), mac bionic chip(4),mac bionic chip(5).
20. Click on '+' then select update records
21. Enter the Details Label: one month of mac rate , API name: Gets Automatically Generated.
22. Field:- Amount__c , value:- for one month of mac bionic chip rate-1700, two month of mac bionic chip rate-3400, three month of mac bionic chip rate-5100, four month of mac bionic chip rate-6800, five month of mac bionic chip rate-8500. Follow for all these finally



Click done.

FLOW:



Click on save .

Label:- Laptop distributions, api name:- automatically filled
Save the flow and activate it.

MILESTONE -09 : creation of APEX

APEX

Apex OverView

Apex is a strongly typed, object-oriented programming language that allows developers to execute flow and transaction control statements on the Lightning platform server in conjunction with calls to the Lightning Platform API. Using syntax that looks like Java and acts like database stored procedures, Apex enables developers to add business logic to most system events, including button clicks, related record updates, and Visualforce pages. Apex code can be initiated by Web service requests and from triggers on objects.

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

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:

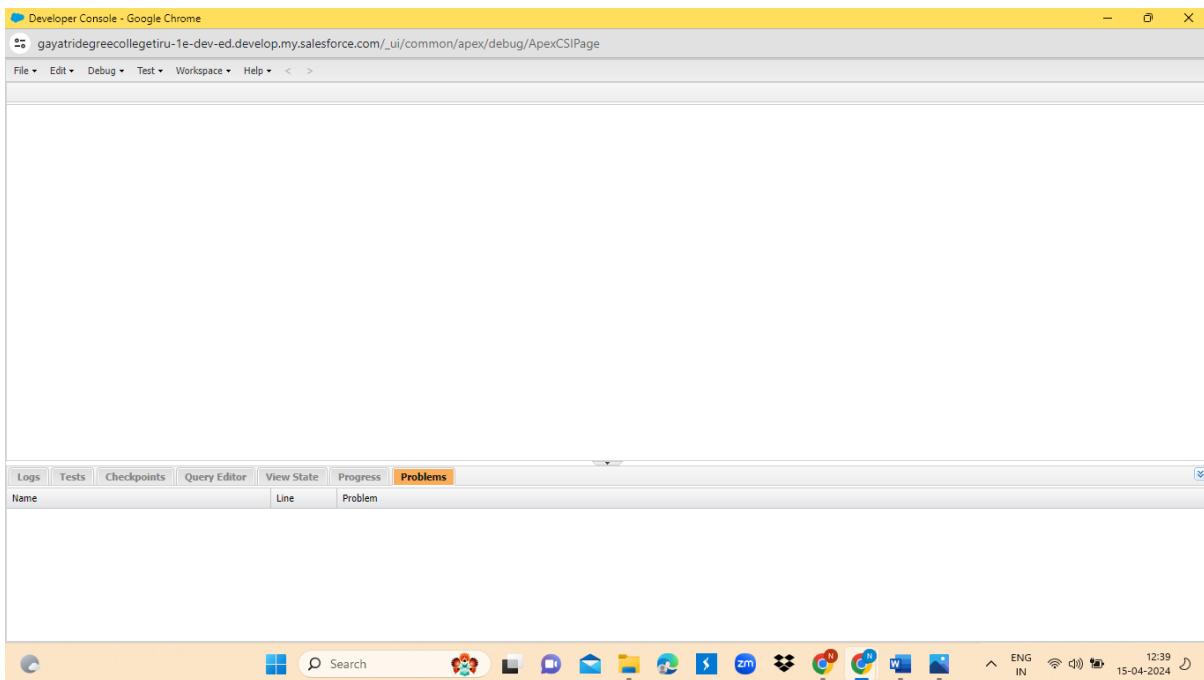
As in Java, you can create classes in Apex. A class is a template or blueprint from which objects are created. An object is an instance of a class.

- 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.

Access specifiers in Apex :

Apex allows you to use the private, protected, public, and global access modifiers when defining methods and variables.

While triggers and anonymous blocks can also use these access modifiers, they aren't as useful in smaller portions of Apex. For example, declaring a method as global in an anonymous block doesn't enable you to call it from outside of that code.

Private:

This access modifier is the default, and means that the method or variable is accessible only within the Apex class in which it's defined. If you don't specify an access modifier, the method or variable is private.

Protected:

This means that the method or variable is visible to any inner classes in the defining Apex class, and to the classes that extend the defining Apex class. You can only use this access modifier for instance methods and member variables. This setting is strictly more permissive than the default (private) setting, just like Java.

Public :

This means that the method or variable is accessible by all Apex within a specific package. For accessibility by all second-generation (2GP) managed packages that

share a namespace, use public with the @NamespaceAccessible annotation. Using the public access modifier in no-namespace packages implicitly renders the Apex code as @NamespaceAccessible.

Global

This means the method or variable can be used by any Apex code that has access to the class, not just the Apex code in the same application. This access modifier must be used for any method that must be referenced outside of the application, either in SOAP API or by other Apex code. If you declare a method or variable as global, you must also declare the class that contains it as global. This is how a new class is created :

```
1 ▾ public class Student {  
2  
3 }
```

Triggers :

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.

With Apex triggers, you can automate tasks that would otherwise be nearly impossible to accomplish using only the Salesforce user interface. Triggers enable you to create custom scripts that you can implement according to your needs, and the only limitation is your coding skills.

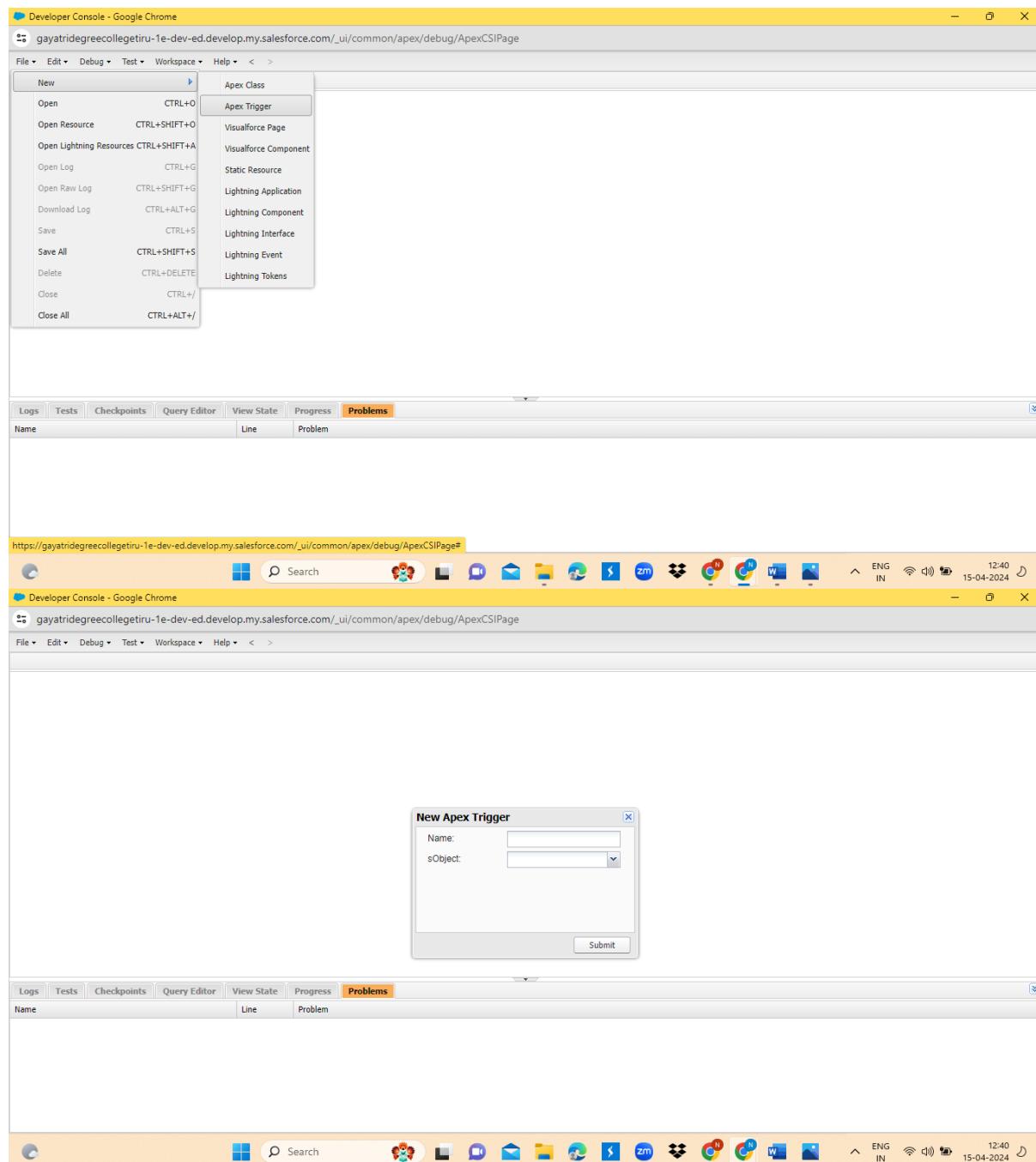
There are two Salesforce Apex trigger types:

Before triggers. These are helpful in cases that require a validation process before accepting a change. They run before any database changes. After triggers. These are helpful in cases where you need to modify your database records and when the necessary value is stored in other records. They run after any database changes. Both types will help you perform custom tasks and manage records effectively. They can help you perform bulk actions as they can handle several records simultaneously.

How to create a new trigger :

1. While still in the trailhead account, navigate to the gear icon in the top right corner.

2. Click on developer console and you will be navigated to a new console window.
3. Click on the File menu in the toolbar, and click on new- Trigger.
4. Enter the trigger name and the object to be triggered.



Syntax For creating trigger :

The syntax for creating trigger is :

Trigger [trigger name] on [object name](Before/After event)

```
{
}
```

The screenshot shows the Salesforce Developer Console in Google Chrome. The URL is `gayantridegreecollegeitru-1e-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. The tab is titled "LaptopBookings.apxt". The code editor contains the following Apex trigger:

```
trigger LaptopBookings on Laptop_Bookings__ChangeEvent (after insert) {
    if(trigger.isAfter && ( trigger.isInsert || trigger.isupdate))
    {
        LaptopBookingHandler.sendEmailNotification(trigger.new);
    }
}
```

The "Problems" tab is selected at the bottom. The taskbar at the bottom of the screen shows various application icons.

Note:- copy the API names

1.LaptopBooking - trigger name

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

Handler Class:

The screenshot shows the Salesforce Developer Console in Google Chrome. The URL is `gayantridegreecollegeitru-1e-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. The tab is titled "LaptopBookingHandler.apxc". The code editor contains the following Apex 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 to us.\n Please continue your journey !';
            email.setPlainTextBody(body);
            Messaging.sendEmail(new List<Messaging.SingleEmailMessage>(email));
        }
    }
}
```

The "Logs" tab is selected at the bottom. The taskbar at the bottom of the screen shows various application icons.

Code Snippet :

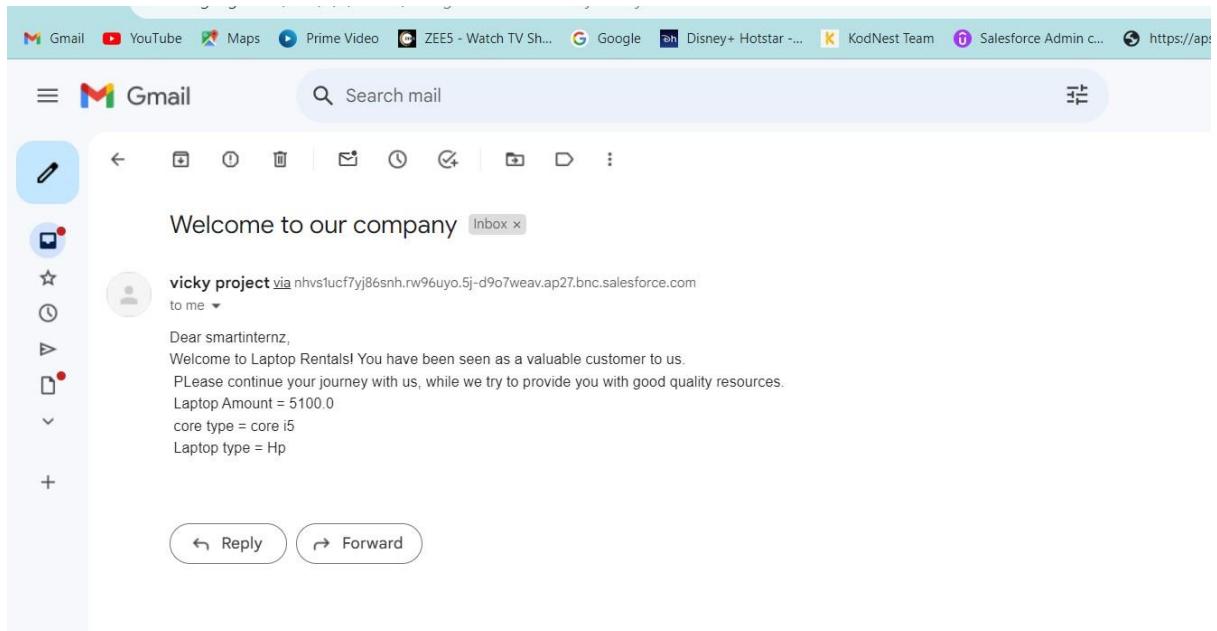
```
public class LaptopBookingHandler {  
    public static void sendEmailNotification (List<Laptop_Bookings__c> lapList){  
        for(Laptop_Bookings__c lap:lapList)  
        {  
            Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();  
            email.setToAddresses( 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 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<Messaging.SingleEmailMessage>{email});  
        }  
    }  
}
```

Note:-

- 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.

Result:



Note: Before creating reports just fill the 10-12 records in the Laptop Bookings object. Create records for each one you have to create at least 2 different records i.e dell(i3), dell(i7), acer(i3), hp(i5), mac(bionic chip).

Code Snippet :

```
public class Laptop Booking Handler {  
    public static void send Email Notification (List< Laptop_ Bookings__ c> lap cList){  
        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 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<Messaging.SingleEmailMessage>{email});  
        }  
    }  
}
```

Note:-

1. Class name:- Laptop Booking Handler
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.

Note: Before creating reports just fill the 10-12 records in the Laptop Bookings object. Create records for each one you have to create at least 2 different records i.e dell(i3), dell(i7),acer(i3),hp(i5),mac(bionic chip).

MILESTONE -10: creation of reports

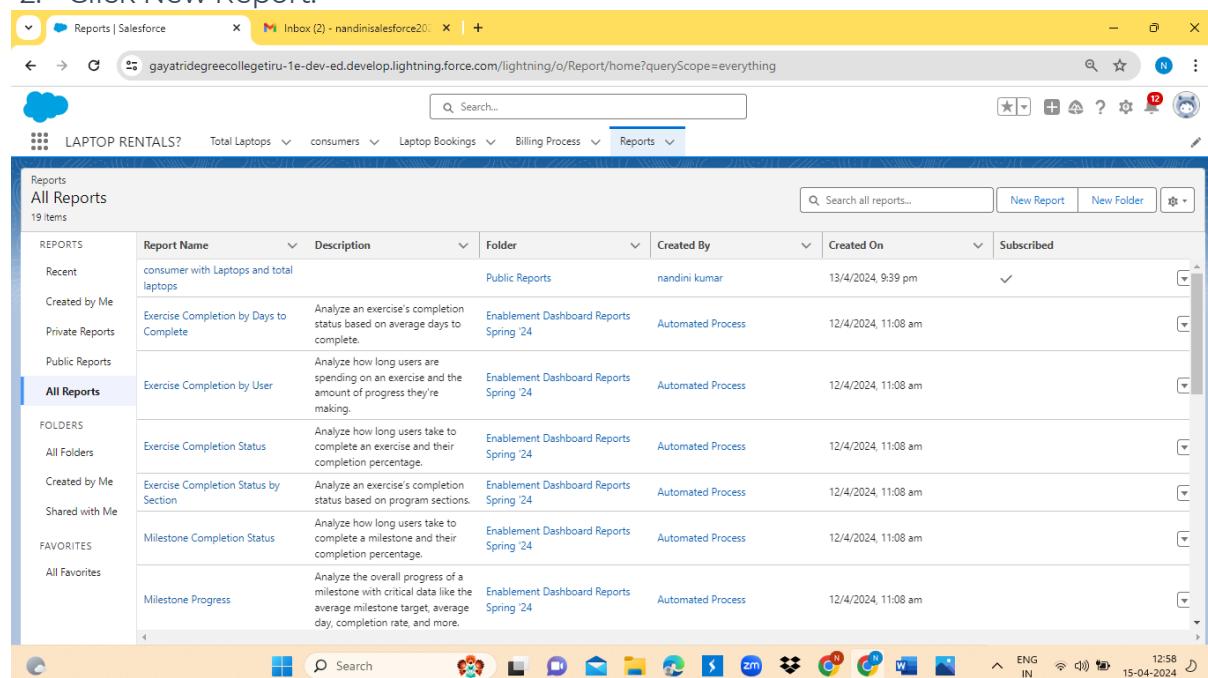
Reports

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 Salesforce.com we can easily generate reports in different styles. And can create reports in a very short time and also schedule the reports. Salesforce provides a powerful suit of analytic tools to help you organize, view and analyze your data.

Create Report

1. Go to the app -click on the reports tab
2. Click New Report.



The screenshot shows the Salesforce Reports page. The top navigation bar includes tabs for 'Reports' (which is selected), 'Inbox (2)', and a search bar. Below the navigation is a breadcrumb trail: 'LAPTOP RENTALS' > 'Total Laptops' > 'consumers' > 'Laptop Bookings' > 'Billing Process' > 'Reports'. On the left, there's a sidebar with sections for 'Reports', 'Folders', and 'Favorites'. The main content area displays a table of reports with columns: Report Name, Description, Folder, Created By, Created On, and Subscribed. The table lists several reports, such as 'consumer with Laptops and total laptops', 'Exercise Completion by Days to Complete', 'Exercise Completion by User', 'Exercise Completion Status', 'Exercise Completion Status by Section', 'Milestone Completion Status', and 'Milestone Progress'. Each report has a detailed description and is categorized under 'Public Reports' or 'Enablement Dashboard Reports Spring '24'.

3. Select report type from category or from report type panel or from search panel "consumer with Laptop Bookings and total laptops" - click on start report.

4. Customize your report

5. Add fields from left pane as shown below

type of version	consumer: consumer Name	Laptop Bookings: Name	Total No Of Laptops: Total Laptops	core type	laptop names	Amount
intermediate (3)	uday	smartinternz	9	core i5	dell	₹1,600
	uday	pandore	6	core i3	hp	₹2,000
	sunny	stackneus	4	core i5	acer	₹3,000
						₹6,600
high (5)	uday	smartinternz	11	core i5	dell	₹6,500
	uday	codehub	11	core i7	mac	₹6,500
	lavanya	pandore	8	core i3	hp	₹8,000
	kethana	smartinternz	1	core i7	mac	₹8,000
	krishana	google	2	core i5	dell	₹8,000
						₹37,000
very high (4)	uday	pandore	7	core i3	hp	₹9,500
	uday	smartinternz	10	core i5	acer	₹9,000
	sunny	stackneus	3	core i5	acer	₹9,500
	uday	pandore	5	core i3	hp	₹11,000
						₹39,000

Follow the above image group rows and columns.

6. Click the column drop down and select bucket list.

7.

The screenshot shows the Salesforce Report Builder interface. A modal window titled "Edit Bucket Column" is open, allowing the configuration of a bucketing logic for the "Amount" field. The configuration defines four buckets: "basic" (range <= 900), "intermediate" (> 900 to 3500), "high" (> 3,500 to 8,000), and "very high" (> 8,000). A checkbox option "Treat empty Amount values in the report as zeros." is checked. In the background, the main report view displays consumer names and their total amounts.

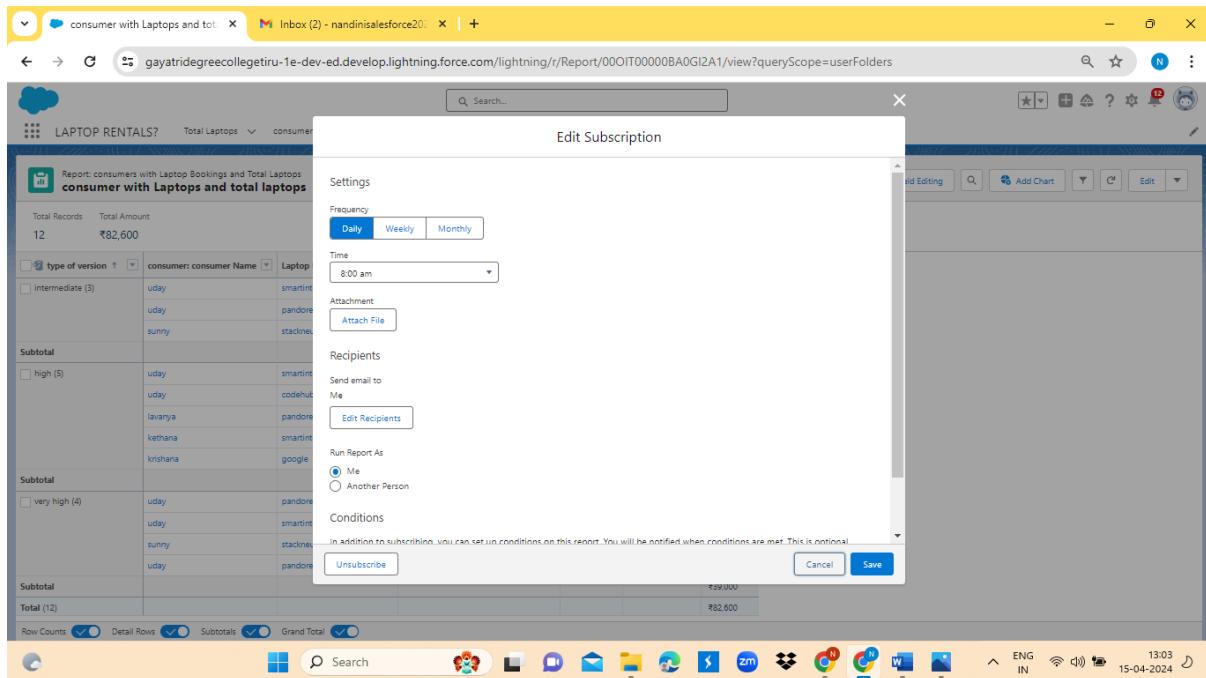
Click apply it.

Sharing Report To Owner

1. Click edit drop down and select subscribe option

The screenshot shows the final state of the report after applying the bucketing logic. The report table now includes a new column labeled "type of version". The data in this column corresponds to the defined buckets: "basic" for amounts up to 900, "intermediate" for amounts between 900 and 3500, "high" for amounts between 3,500 and 8,000, and "very high" for amounts above 8,000. The rest of the report structure remains the same, displaying consumer names, laptop bookings, total laptops, core type, and laptop names.

2. Follow as per below image.



3. After selecting the run report as a “another person” select your personal account or whom you want to send that mail to.

4. Click save.

NOTE: The owner gets daily email notification of that laptop booking report.so that he can see all data remotely.

MILESTONE -11: CREATION OF DASHBOARDS

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.

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.

Create Dashboard

1. Go to the app - click on the Dashboards tabs.

LAPTOP RENTALS?

Dashboards

Recent

1 item

DASHBOARDS	Dashboard Name	Description	Folder	Created By	Created On	Subscribed
Recent	data analytics of laptops	total amount of data in dashboards	total rent amount	nandini kumar	13/4/2024, 9:55 pm	

DASHBOARDS

Created by Me

Private Dashboards

All Dashboards

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

All Favorites

2. Give a Name and select the folder that was created, and click on create.

New Dashboard

Name: data analytics of laptops

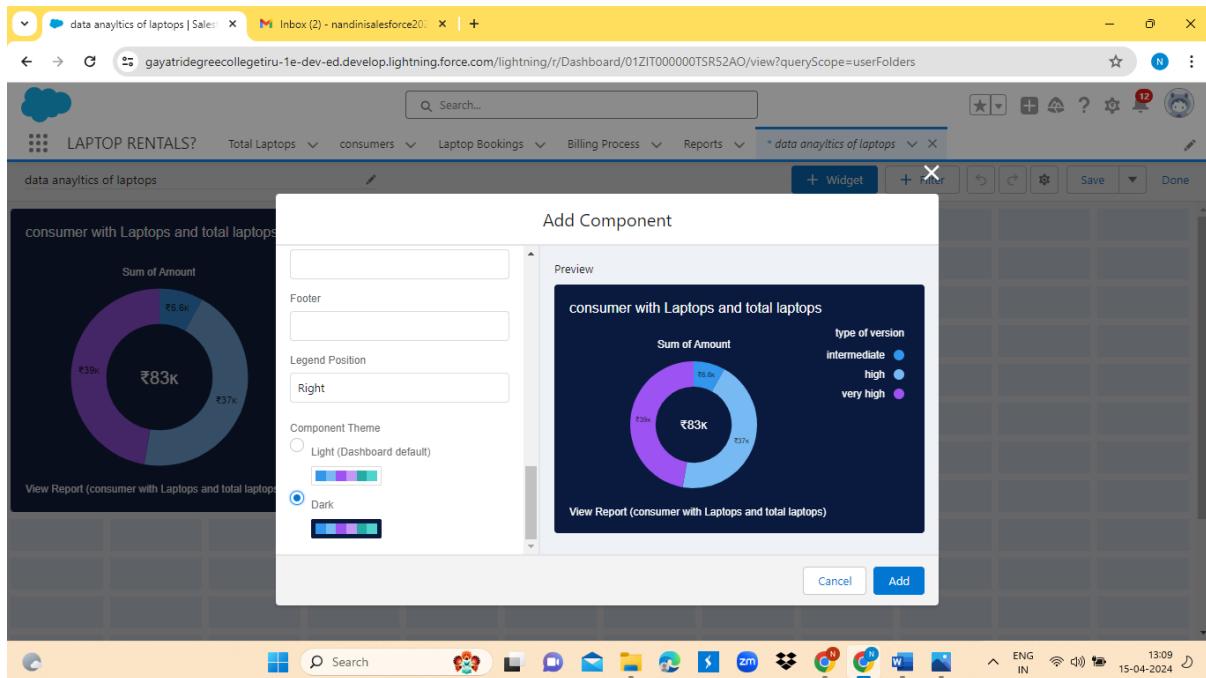
Description: total amount of data in dashboards

Folder: total rent amount

Create

3. Select add component.

4. Select a Report and click on select.



4. Select the dark component and add to the dashboards.
5. Save it.
6. Click done.

