SALES AUTOMOBILE USING SALESFORCE

SALESFORCE PROJECT REPORT

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November-2024

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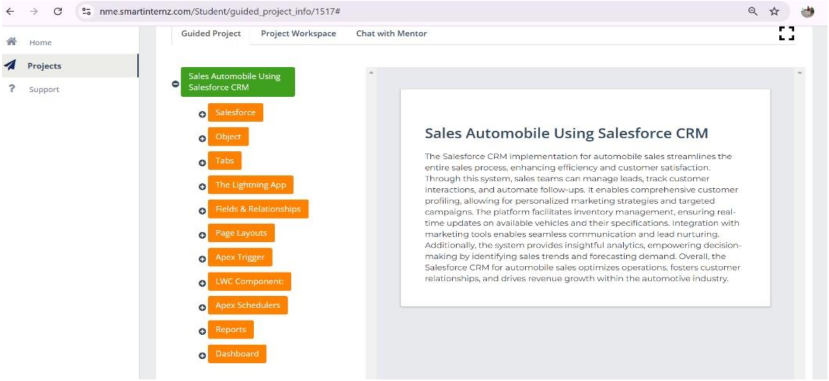
Project Title: SALES AUTOMOBILE USING SALESFORCE

1. Project Overview

This project involves the development and implementation of a Customer Relationship Management (CRM) system tailored specifically for automobile sales. The goal is to streamline client management, enhance customer engagement, and optimize sales processes through Salesforce. By leveraging Salesforce's CRM platform, automobile dealerships can efficiently manage customer data, track interactions, and improve the customer experience from initial inquiry to post-purchase follow-up.

2. Project Objectives (Points Only)

- Enhance client relationship management.
- Optimize sales tracking and workflow.
- Improve data accessibility and integration.
- Provide real-time insights for decision-making.
- Increase efficiency in lead management and follow-up.



Sales Automobile Using Salesforce CRM

The Salesforce CRM implementation for automobile sales streamlines the entire sales process, enhancing efficiency and customer satisfaction. Through this system, sales teams can manage leads, track customer interactions, and automate follow-ups. It enables comprehensive customer profiling, allowing for personalized marketing strategies and targeted campaigns. The platform facilitates inventory management, ensuring real-time updates on available vehicles and their specifications. Integration with marketing tools enables seamless communication and lead nurturing. Additionally, the system provides insightful analytics, empowering decision-making by identifying sales trends and forecasting demand. Overall, the Salesforce CRM for automobile sales optimizes operations, fosters customer relationships, and drives revenue growth within the automotive industry.

Fig:01

3. Salesforce Key Features and Concepts Utilized

In implementing this CRM application, several core Salesforce features and concepts were utilized:

- Salesforce CRM: Consolidates customer interactions, lead tracking, and account management.
- Salesforce Automation: Streamlines tasks like follow-ups and updates.
- Sales Cloud: Enabled for lead conversion, pipeline management, and sales forecasting specific to engineering project workflows.
- Custom Objects and Fields: Capture auto sales-specific data.
- Reports and Dashboards: Visual insights on sales performance and client engagement.
- Workflow Rules and Process Builder:Automate tasks, like notifying the sales team when a new lead enters.
- API Integrations: Sync data between Salesforce and other dealership applications.

4. Detailed Steps to Solution Design

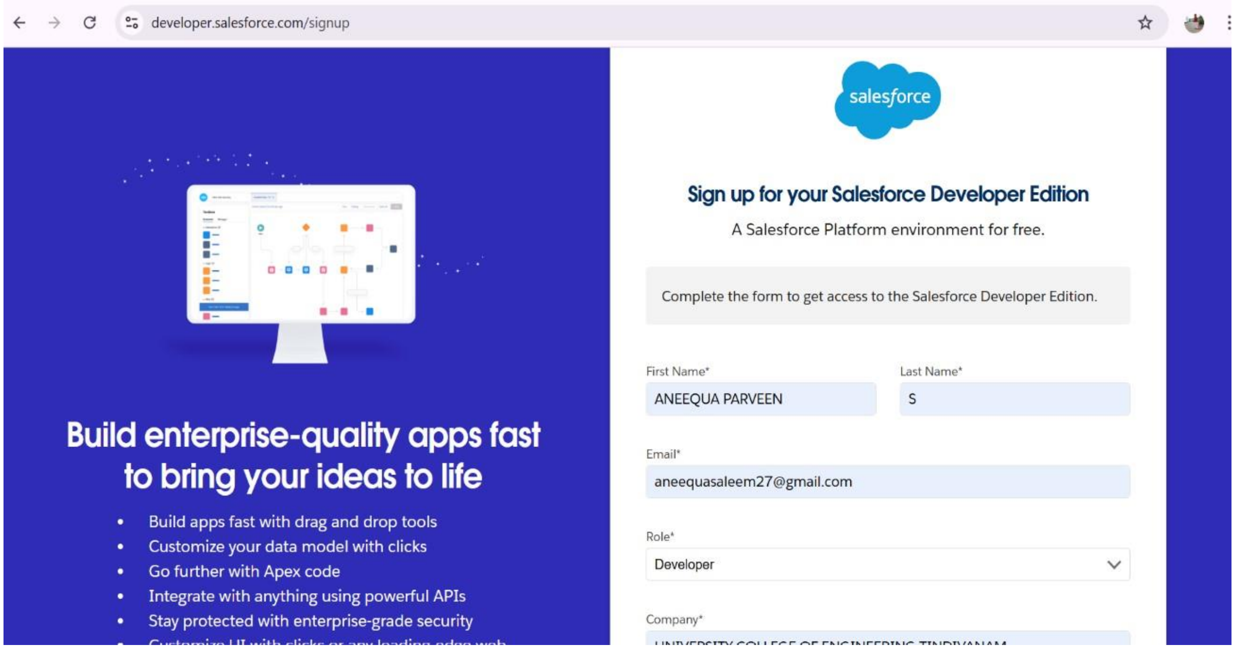
Develop thorough documentation of the design, encompassing data models, user interface designs, and business logic. Ensure that all elements are accompanied by relevant screenshots.

Creating DeveloperAccount:

Creating a developer org in salesforce.

1.Go to https://developer.salesforce.com/signup

2.On the sign up form, enter the following details :



developer.salesforce.com/signup

Build enterprise-quality apps fast to bring your ideas to life

- Build apps fast with drag and drop tools
- Customize your data model with clicks
- Go further with Apex code
- Integrate with anything using powerful APIs
- Stay protected with enterprise-grade security
- Customize UI with clicks or any leading-edge web

Sign up for your Salesforce Developer Edition

A Salesforce Platform environment for free.

Complete the form to get access to the Salesforce Developer Edition.

First Name*: ANEEQUA PARVEEN

Last Name*: S

Email*: aneequasaleem27@gmail.com

Role*: Developer

Company*: UNIVERSITY COLLEGE OF ENGINEERING TINDIVANAM

Fig:02

1. First name & Last name
2. Email
3. Role : Developer
4. Company : College Name
5. County : India
6. Postal Code : pin code
7. Username : should be a combination of your name and company

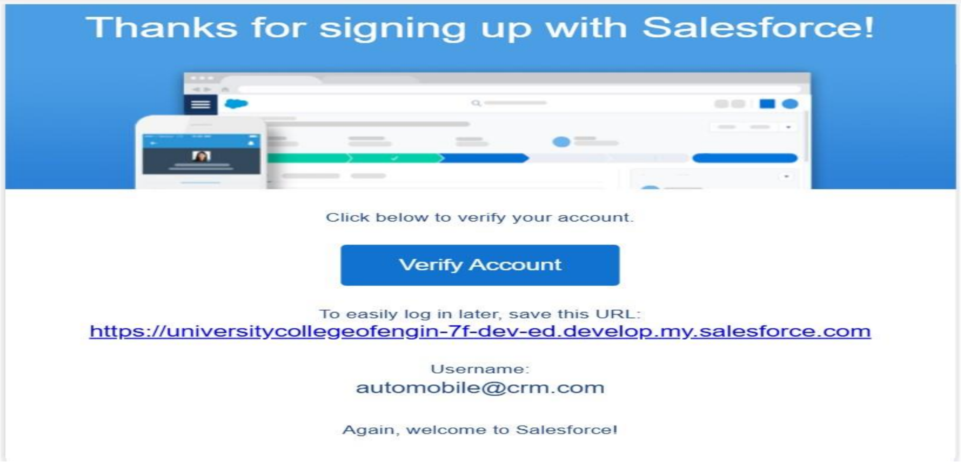
This need not be an actual email id, you can give anything in the format : username@organization.com

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.

1. Project Overview



Thanks for signing up with Salesforce!

Click below to verify your account.

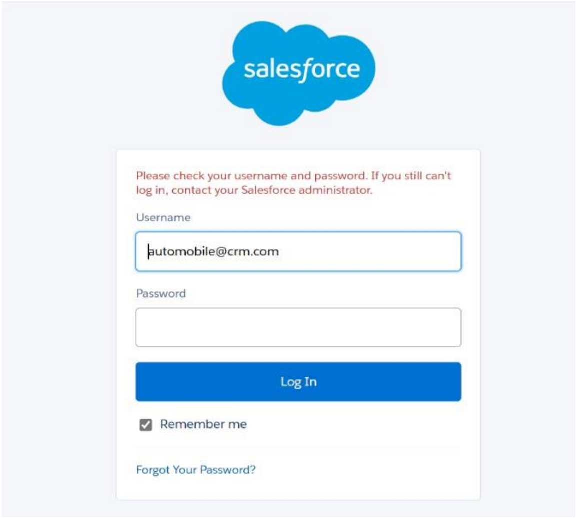
To easily log in later, save this URL:
https://universitycollegeofengin-7f-dev-ed.develop.my.salesforce.com

Username:
automobile@crm.com

Again, welcome to Salesforce!

Fig:03

- Click on Verify Account.
- Give a password and answer a security question and click on change password.



Please check your username and password. If you still can't log in, contact your Salesforce administrator.

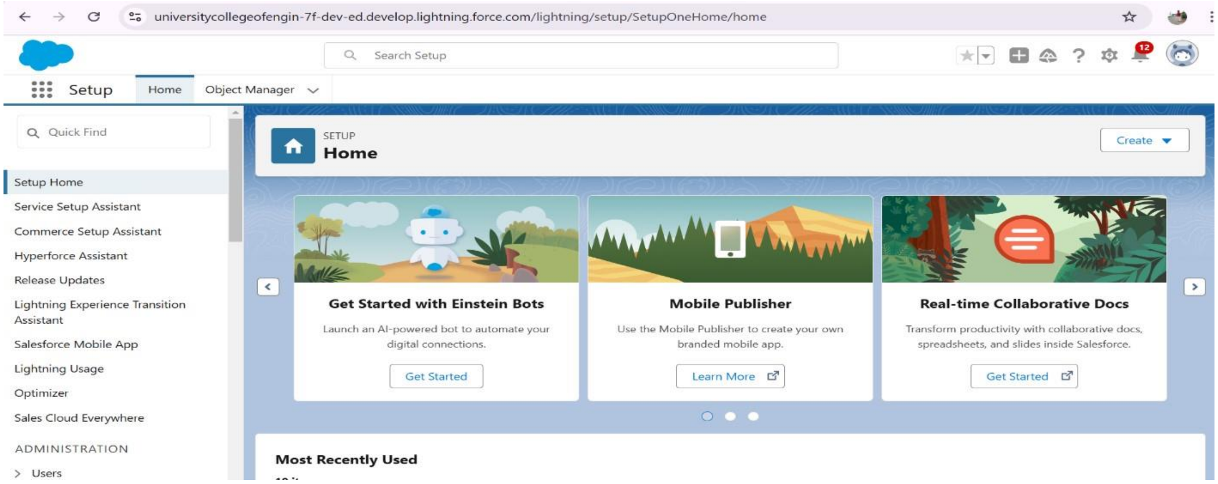
Username
automobile@crm.com

Password

☑ Remember me

Fig:04

- Then you will redirect to your salesforce setup page.



Launch an AI-powered bot to automate your digital connections.

Use the Mobile Publisher to create your own branded mobile app.

Transform productivity with collaborative docs, spreadsheets, and slides inside Salesforce.

Fig:05

➢ OBJECT

Salesforce objects are database tables that permit you to store data that is specific to a organization.

Salesforce objects are of two types:

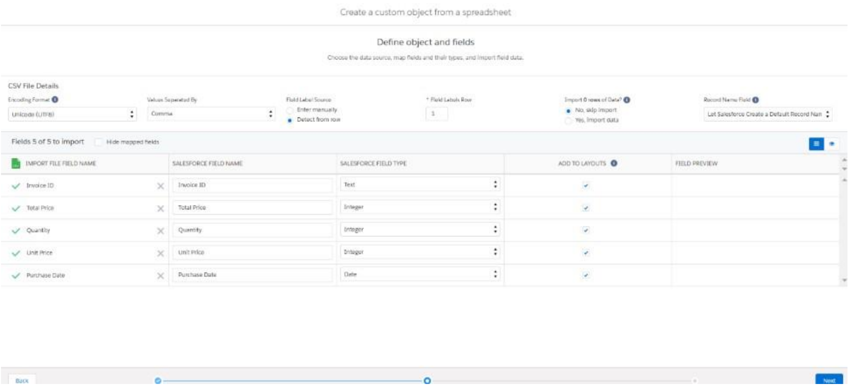
1.Standard Objects: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.

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 Invoice Object

Create Invoice object, just as we have created an Automobile Information Object using Make sure to Download the File into CSV Format.

Note: Make sure you do field mapping with proper field type as **shown below.**



Create a custom object from a spreadsheet

Define object and fields

Choose the data source, map fields and their types, and import field data.

CSV File Details

Encoding Format: Unicode (UTF8)

Values Seperated By: Comma

Field Label Source: ○ Enter manually ● Detect from row

* Field Labels Row: 1

Import 0 rows of Data?: ● No, skip import ○ Yes, import data

Record Name Field: Let Salesforce Create a Default Record Nan

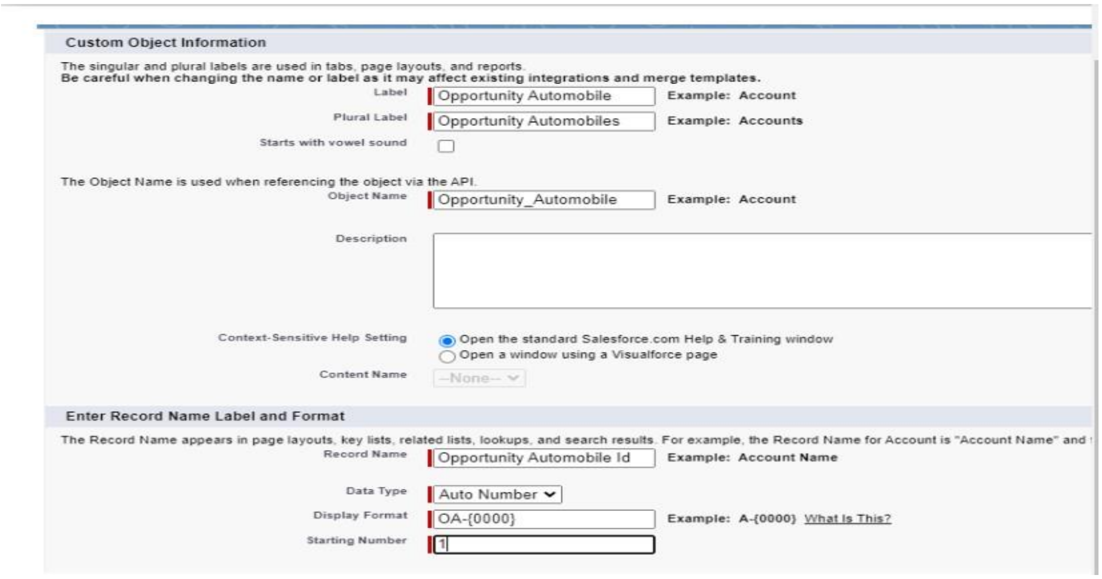
Fields 5 of 5 to import □ Hide mapped fields

IMPORT FILE FIELD NAME	SALESFORCE FIELD NAME	SALESFORCE FIELD TYPE	ADD TO LAYOUTS	FIELD PREVIEW
✓ Invoice ID	Invoice ID	Text	✓	
✓ Total Price	Total Price	Integer	✓	
✓ Quantity	Quantity	Integer	✓	
✓ Unit Price	Unit Price	Integer	✓	
✓ Purchase Date	Purchase Date	Date	✓	

Fig:06

Create Automobile Object

The purpose of creating an Automobile custom object is to store and manage information about Invoice.



Custom Object Information

The singular and plural labels are used in tabs, page layouts, and reports.
Be careful when changing the name or label as it may affect existing integrations and merge templates.

Label: Opportunity Automobile — Example: Account

Plural Label: Opportunity Automobiles — Example: Accounts

Starts with vowel sound: □

The Object Name is used when referencing the object via the API.

Object Name: Opportunity_Automobile — Example: Account

Description:

Context-Sensitive Help Setting: ● Open the standard Salesforce.com Help & Training window ○ Open a window using a Visualforce page

Content Name: --None--

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and

Record Name: Opportunity Automobile Id — Example: Account Name

Data Type: Auto Number

Display Format: OA-{0000} — Example: A-{0000} What Is This?

Starting Number: 1

Fig:07

➢ 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 Types of Tabs:

1.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.

2. 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.

3.Visualforce Tabs

Visualforce Tabs are custom tabs that display a Visualforce page. Visualforce tabs look and behave like standard salesforce.com tabs such as accounts, contacts, and opportunities.

4.Lightning Component Tabs

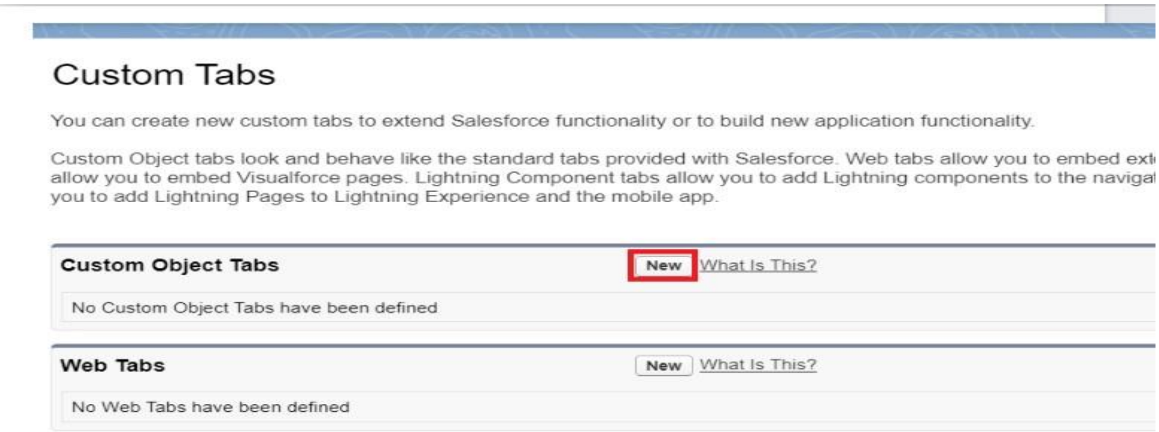
Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app.

5.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



Custom Tabs

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed ext allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigat you to add Lightning Pages to Lightning Experience and the mobile app.

Custom Object Tabs New What Is This?

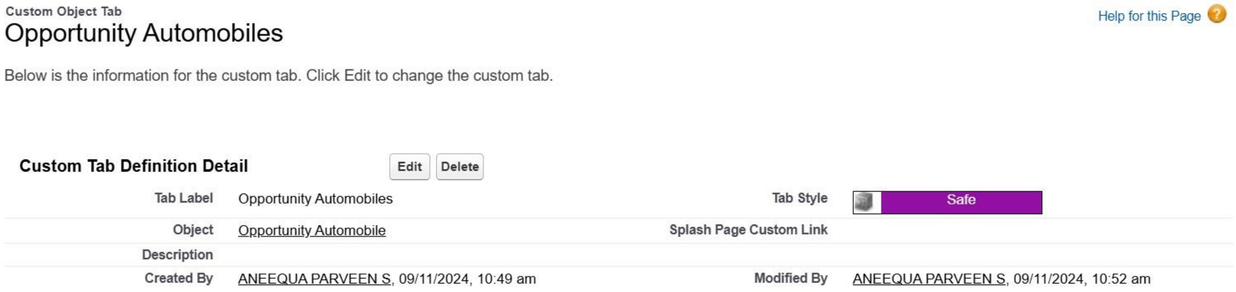
No Custom Object Tabs have been defined

Web Tabs New What Is This?

No Web Tabs have been defined

Fig:08

2.Select Object(Opportunity Automobile) >> Select any tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) keep it as default >> Save.



Custom Object Tab

Opportunity Automobiles

Help for this Page

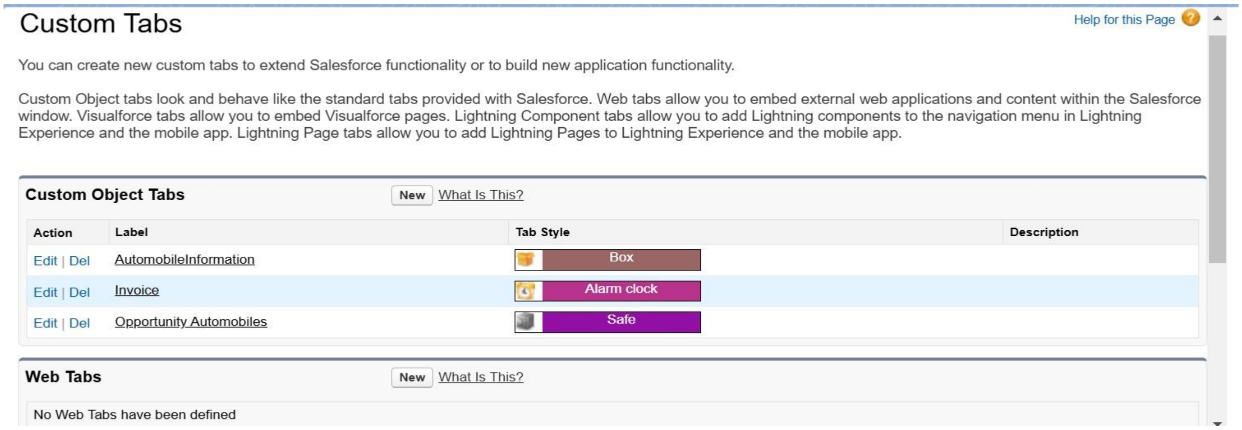
Below is the information for the custom tab. Click Edit to change the custom tab.

Custom Tab Definition Detail Edit Delete

Tab Label	Opportunity Automobiles	Tab Style	Safe
Object	Opportunity Automobile	Splash Page Custom Link	
Description			
Created By	ANEEQUA PARVEEN S, 09/11/2024, 10:49 am	Modified By	ANEEQUA PARVEEN S, 09/11/2024, 10:52 am

Fig:09

3.final Custom Tab



Custom Tabs

Help for this Page

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.

Custom Object Tabs New What Is This?

Action	Label	Tab Style	Description
Edit | Del	AutomobileInformation	Box	
Edit | Del	Invoice	Alarm clock	
Edit | Del	Opportunity Automobiles	Safe	

Web Tabs New What Is This?

No Web Tabs have been defined

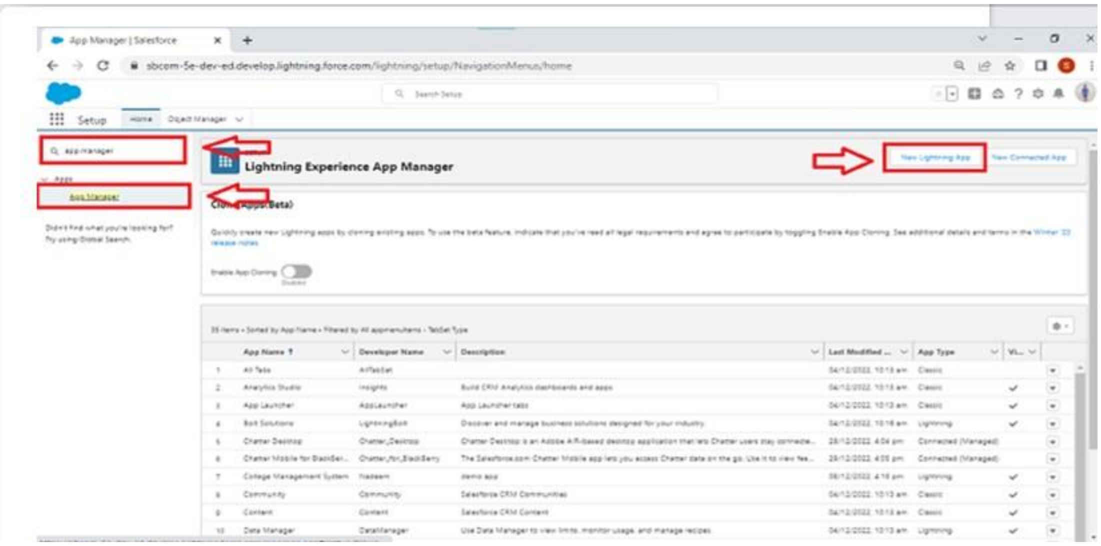
Fig:10

➢ The Lightning App

- An app is a collection of items that work together to serve a particular function. In Lightning Experience, Lightning apps gives 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

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


App Manager | Salesforce
sbcom-5e-dev-ed.develop.lightning.force.com/lightning/setup/NavigationMenus/home
Search Setup
Setup
Home
Object Manager
app manager
Apps
App Manager
Didn't find what you're looking for? Try using Global Search.
Lightning Experience App Manager
New Lightning App
New Connected App
Cloning Apps (Beta)
Enable App Cloning
Disabled

Quickly create new Lightning apps by cloning existing apps. To use the beta feature, indicate that you've read all legal requirements and agree to participate by toggling Enable App Cloning. See additional details and terms in the Winter '23 release notes.

35 items • Sorted by App Name • Filtered by All appmenuitems - TabSet Type

	App Name	Developer Name	Description	Last Modified ...	App Type	Vi...
1	All Tabs	AllTabSet		04/12/2022, 10:13 am	Classic	
2	Analytics Studio	Insights	Build CRM Analytics dashboards and apps	04/12/2022, 10:13 am	Classic	✓
3	App Launcher	AppLauncher	App Launcher tabs	04/12/2022, 10:13 am	Classic	✓
4	Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your industry.	04/12/2022, 10:16 am	Lightning	✓
5	Chatter Desktop	Chatter_Desktop	Chatter Desktop is an Adobe AIR-based desktop application that lets Chatter users stay connecte...	23/12/2022, 4:04 pm	Connected (Managed)	
6	Chatter Mobile for BlackBer...	Chatter_for_BlackBerry	The Salesforce.com Chatter Mobile app lets you access Chatter data on the go. Use it to view fee...	23/12/2022, 4:05 pm	Connected (Managed)	
7	College Management System	Nadeem	demo app	08/12/2022, 4:16 pm	Lightning	✓
8	Community	Community	Salesforce CRM Communities	04/12/2022, 10:13 am	Classic	✓
9	Content	Content	Salesforce CRM Content	04/12/2022, 10:13 am	Classic	✓
10	Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage recipes.	04/12/2022, 10:13 am	Lightning	✓

Fig:11

2.Fill the app name in app details and branding as follow

a. App Name :Sales Automobile Using Salesforce CRM

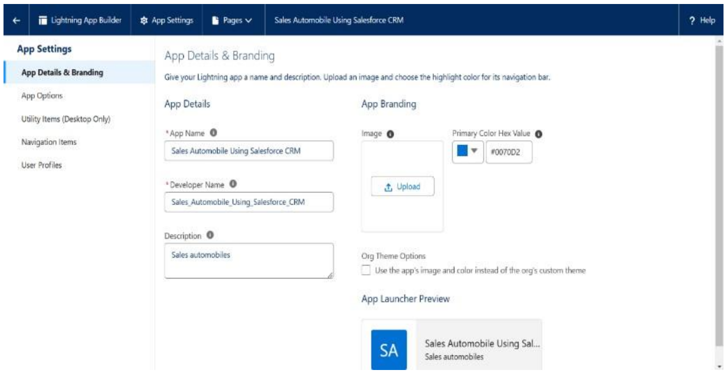
b. Developer Name : this will auto populated

c. Description : Give a meaningful description

d. Image : optional (if you want to give any image you can otherwise not mandatory)

e. Primary color hex value : keep this default

3.Then click Next >> (App option page) keep it as default >> Next >> (Utility Items) keep it as default >> Next



Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.

* App Name: Sales Automobile Using Salesforce CRM

* Developer Name: Sales_Automobile_Using_Salesforce_CRM

Description: Sales automobiles

Image

Primary Color Hex Value: #0070D2

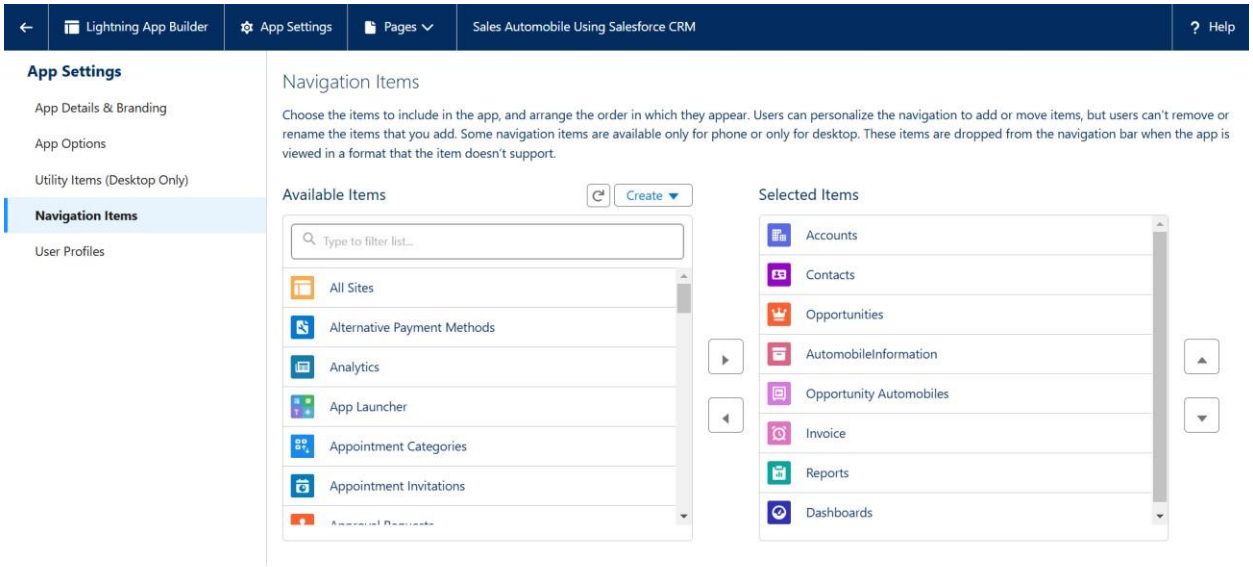
Org Theme Options

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

Sales Automobile Using Sal...
Sales automobiles

Fig:12

4.Add Navigation Items:


← | Lightning App Builder | App Settings | Pages | Sales Automobile Using Salesforce CRM | ? Help

App Settings

- App Details & Branding
- App Options
- Utility Items (Desktop Only)
- **Navigation Items**
- User Profiles

Navigation Items

Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.

Available Items	Selected Items
All Sites	Accounts
Alternative Payment Methods	Contacts
Analytics	Opportunities
App Launcher	AutomobileInformation
Appointment Categories	Opportunity Automobiles
Appointment Invitations	Invoice
	Reports
	Dashboards

Fig:13

5.Search the items in the search bar(Account,Contact ,Opportunities,Automobile Information,Opportunity Automobile,Invoice, Reports, Dashboard) from the search bar and move Next.

Note: select asset the custom object which we have created in the previous activity.

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

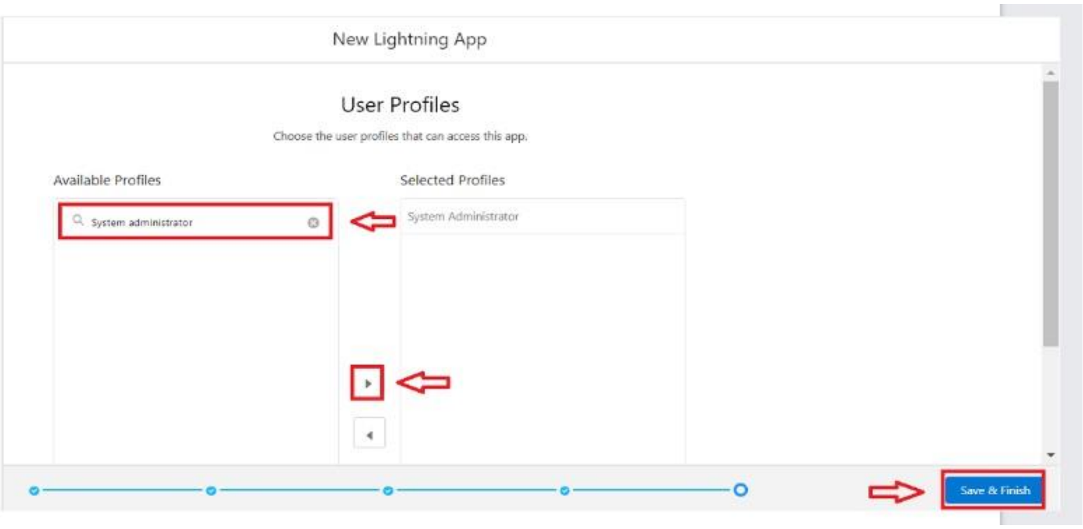


Fig:14

➢ Fields & Relationships

When we talk about Salesforce, Fields represent the data stored in the columns of a relational database. It can 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 nonrequired 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.

➢ Page Layouts

Page Layout in Salesforce allows us to customize the design and organize detail and edit pages of records in Salesforce. Page layouts can be used to control the appearance of fields, related lists, and custom links on standard and custom objects' detail and edit pages.

Edit the Page layout for Opportunity Object

- Go to Setup >> Click on Object Manager >> On the search bar, select Opportunity Layout. You can notice Page Layouts on the left panel
- Click on Page Layouts, Click on ‘Opportunity Layouts’.
- In the Opportunity Detail Section, you can see various fields. Go on Account And Click on that Properties icon of Account name Field.
- check the Required box for Account name and click on Ok.
- Click on Save.

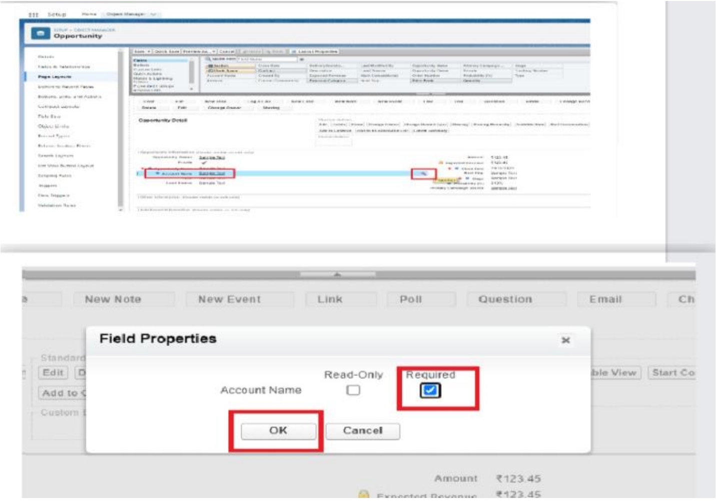


Fig:15

Edit the Page layout for Automobiles Information

- Go to Setup >> Click on Object Manager >> On the search bar, select Automobile Information. You can notice Page Layouts on the left panel
- Click on Page Layouts. Click on ‘Automobile Information Layout’.
- Just Go for each one field of Automobile Information Object, Click on Gear Icon and mark as Required just as Done for Above Account Object. After required is done it will show the red color as given in below image.

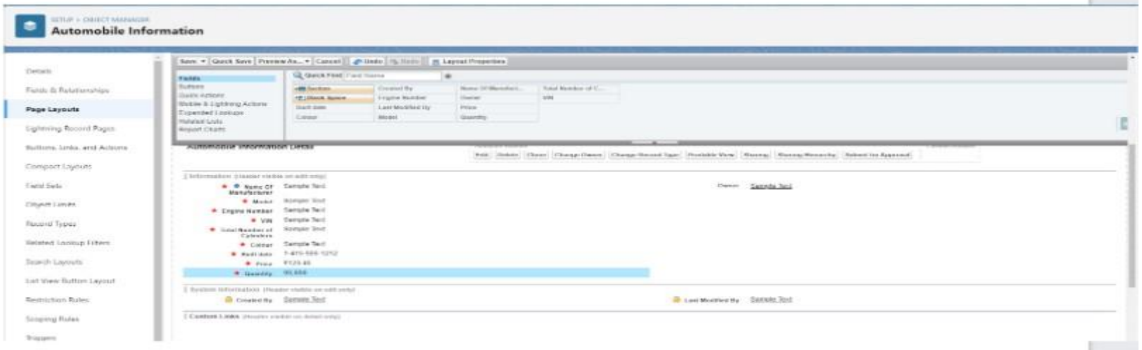
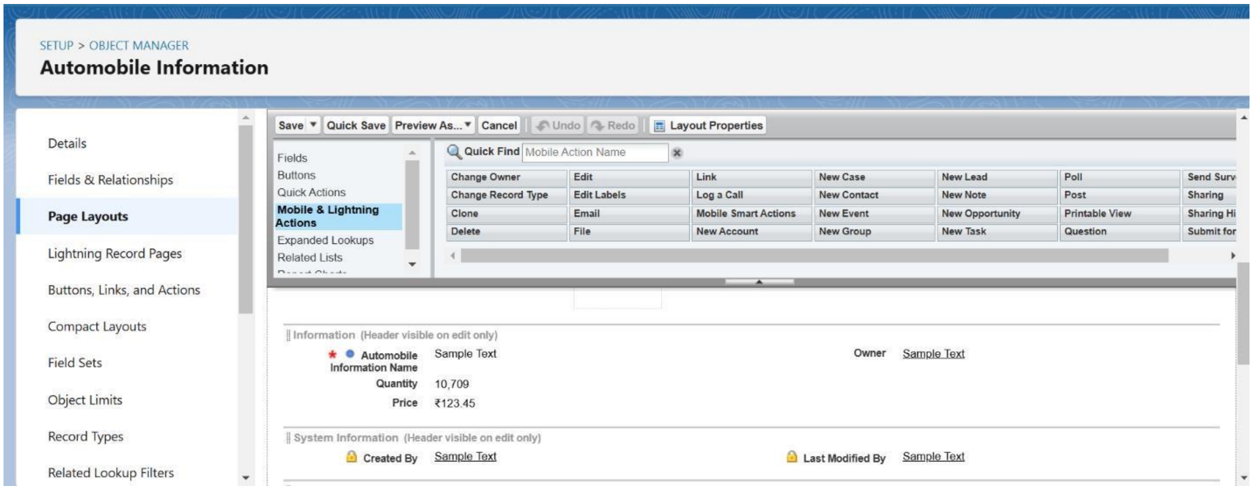


Fig:16

- Adjust the Fields as given below for A good looking view.



Information (Header visible on edit only)

Automobile Information Name Sample Text

Owner Sample Text

Quantity 10,709

Price ₹123.45

System Information (Header visible on edit only)

Created By Sample Text

Last Modified By Sample Text

Fig:17

➢ Apex Trigger

Apex can be invoked by using triggers. Apex triggers enable you to perform custom actions before or after changes to Salesforce records, such as insertions, updates, or deletions.

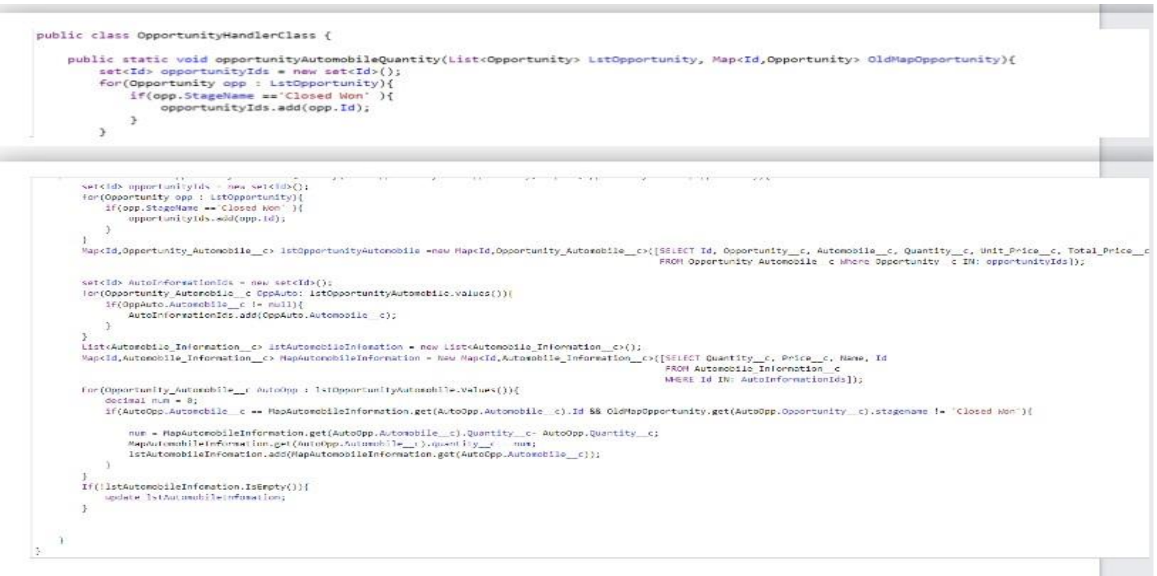
A trigger is Apex code that executes before or after the following types of operations:

- insert
- update
- delete
- merge
- upsert
- undelete

Before Trigger: This type of trigger in Salesforce is used either to update or validate the values of a record before they can be saved into the database. So, basically, the before trigger validates the record first and then saves it. Some criteria or code can be set to check data before it gets ready to be inserted into the database.After Trigger: This type of trigger in Salesforce is used to access the field values set by the system and affect any change in the record. In other words, the after trigger makes changes to the value from the data inserted in some other record.

Opportunity Automobile quantity UseCase : Whenever Opportunity Closed won Than Neglect / Minus the Quantity From Automobile Information on the Bases of Opportunity Automobile quantity.

- Login to the respective trailhead account and navigate to the gear icon in the top right corner.
- Click on the Developer console. Now you will see a new console window.
- In the toolbar, you can see FILE. Click on it and navigate to new and create New apex class.
- Name the class as "OpportunityHandlerClass ".



```
public class OpportunityHandlerClass {

    public static void opportunityAutomobileQuantity(List<Opportunity> LstOpportunity, Map<Id,Opportunity> OldMapOpportunity){
        set<Id> opportunityIds = new set<Id>();
        for(Opportunity opp : LstOpportunity){
            if(opp.StageName =='Closed Won' ){
                opportunityIds.add(opp.Id);
            }
        }
```

```
        set<Id> opportunityIds = new set<Id>();
        for(Opportunity opp : LstOpportunity){
            if(opp.StageName =='Closed Won' ){
                opportunityIds.add(opp.Id);
            }
        }
        Map<Id,Opportunity_Automobile__c> lstOpportunityAutomobile =new Map<Id,Opportunity_Automobile__c>([SELECT Id, Opportunity__c, Automobile__c, Quantity__c, Unit_Price__c, Total_Price__c
                                                                                                          FROM Opportunity_Automobile__c Where Opportunity__c IN: opportunityIds]);

        set<Id> AutoInformationIds = new set<Id>();
        for(Opportunity_Automobile__c OppAuto: lstOpportunityAutomobile.values()){
            if(OppAuto.Automobile__c != null){
                AutoInformationIds.add(OppAuto.Automobile__c);
            }
        }
        List<Automobile_Information__c> lstAutomobileInfomation = new List<Automobile_Information__c>();
        Map<Id,Automobile_Information__c> MapAutomobileInformation = New Map<Id,Automobile_Information__c>([SELECT Quantity__c, Price__c, Name, Id
                                                                                                            FROM Automobile_Information__c
                                                                                                            WHERE Id IN: AutoInformationIds]);
        for(Opportunity_Automobile__c AutoOpp : lstOpportunityAutomobile.values()){
            decimal num = 0;
            if(AutoOpp.Automobile__c == MapAutomobileInformation.get(AutoOpp.Automobile__c).Id && OldMapOpportunity.get(AutoOpp.Opportunity__c).stagename != 'Closed Won'){

                num = MapAutomobileInformation.get(AutoOpp.Automobile__c).Quantity__c- AutoOpp.Quantity__c;
                MapAutomobileInformation.get(AutoOpp.Automobile__c).quantity__c = num;
                lstAutomobileInfomation.add(MapAutomobileInformation.get(AutoOpp.Automobile__c));
            }
        }
        If(!lstAutomobileInfomation.IsEmpty()){
            update lstAutomobileInfomation;
        }

    }
}
```

Fig:18

➢ LWC Component

Create Apex Class to Get Invoices

UseCase : Whenever an opportunity is Closed won then create the Invoice on the Bases of Opportunity Automobile Data.

Login to the respective trailhead account and navigate to the gear icon in the top right corner.
Click on the Developer console. Now you will see a new console window.

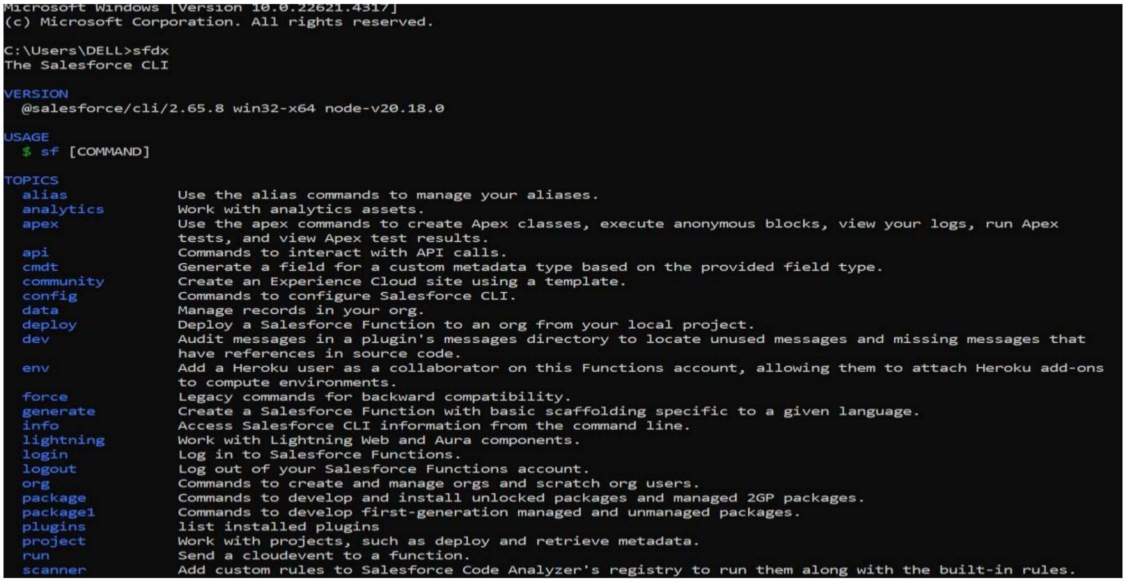
○ In the toolbar, you can see FILE. Click on it and navigate to new and create New apex class. ○ Name the class as "InvoiceCreation".

Install Salesforce CLI

The Salesforce CLI is a powerful command line interface that simplifies development and build automation when working with your Salesforce org.

[Download and install Salesforce CLI]()

To confirm that the Salesforce CLI is installed and working correctly, you can open a command prompt and type sfdx. This will display the version number of the Salesforce CLI that is currently installed on your system.



```
Microsoft Windows [Version 10.0.22621.4317]
(c) Microsoft Corporation. All rights reserved.

C:\Users\DELL>sfdx
The Salesforce CLI

VERSION
  @salesforce/cli/2.65.8 win32-x64 node-v20.18.0

USAGE
  $ sf [COMMAND]

TOPICS
  alias                 Use the alias commands to manage your aliases.
  analytics             Work with analytics assets.
  apex                  Use the apex commands to create Apex classes, execute anonymous blocks, view your logs, run Apex
                        tests, and view Apex test results.
  api                   Commands to interact with API calls.
  cmdt                  Generate a field for a custom metadata type based on the provided field type.
  community             Create an Experience Cloud site using a template.
  config                Commands to configure Salesforce CLI.
  data                  Manage records in your org.
  deploy                Deploy a Salesforce Function to an org from your local project.
  dev                   Audit messages in a plugin's messages directory to locate unused messages and missing messages that
                        have references in source code.
  env                   Add a Heroku user as a collaborator on this Functions account, allowing them to attach Heroku add-ons
                        to compute environments.
  force                 Legacy commands for backward compatibility.
  generate              Create a Salesforce Function with basic scaffolding specific to a given language.
  info                  Access Salesforce CLI information from the command line.
  lightning             Work with Lightning Web and Aura components.
  login                 Log in to Salesforce Functions.
  logout                Log out of your Salesforce Functions account.
  org                   Commands to create and manage orgs and scratch org users.
  package               Commands to develop and install unlocked packages and managed 2GP packages.
  package1              Commands to develop first-generation managed and unmanaged packages.
  plugins               list installed plugins
  project               Work with projects, such as deploy and retrieve metadata.
  run                   Send a cloudevent to a function.
  scanner               Add custom rules to Salesforce Code Analyzer's registry to run them along with the built-in rules.
```

Fig:19

Install Microsoft VS Code

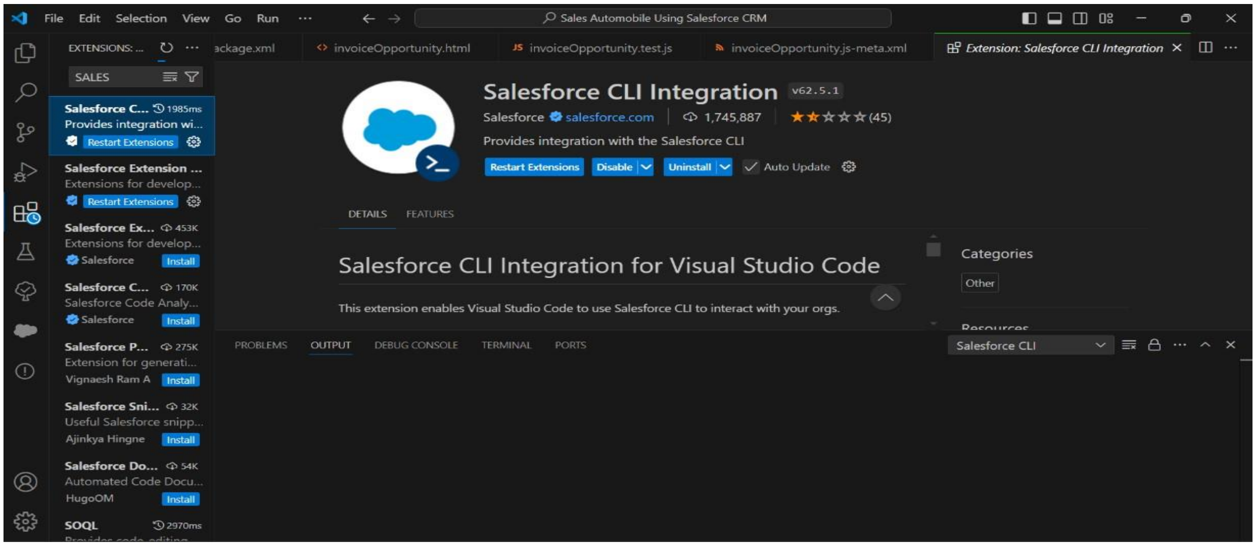
VS Code, or Visual Studio Code, is a free, open-source code editor developed by Microsoft. It is a lightweight, cross-platform code editor that provides features such as debugging, Git integration, and support for a wide range of programming languages.

Download the version of the software that is compatible with your operating system and install it.

The following instructions are for Windows OS. Other operating systems may have slightly different steps.

Install the Salesforce Extension Pack In the VS Code,

1. go to extensions (1) as shown in the image below.
2. Search with the Salesforce extension pack (2) as shown in the image below.
3. select Salesforce Extension Pack from the list (3) as shown in the image below.
4. Click the Install button (4) as shown in the image below.



Salesforce CLI Integration v62.5.1

Salesforce salesforce.com | 1,745,887 | ★★☆☆☆ (45)

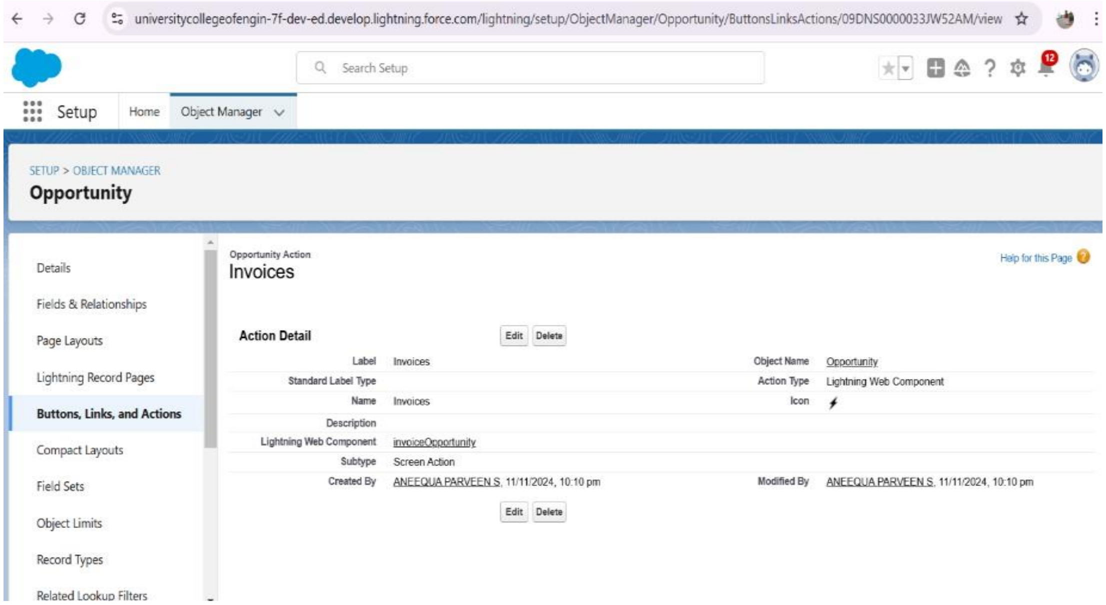
Provides integration with the Salesforce CLI

Salesforce CLI Integration for Visual Studio Code

This extension enables Visual Studio Code to use Salesforce CLI to interact with your orgs.

Fig:20

Add InvoiceOpportunity into Opportunity Record Page



Opportunity

Opportunity Action

Invoices

Action Detail

Label: Invoices

Object Name: Opportunity

Standard Label Type:

Action Type: Lightning Web Component

Name: Invoices

Icon: ⚡

Description:

Lightning Web Component: invoiceOpportunity

Subtype: Screen Action

Created By: ANEEQUA PARVEEN S, 11/11/2024, 10:10 pm

Modified By: ANEEQUA PARVEEN S, 11/11/2024, 10:10 pm

Fig:21

➢ Apex Schedulers

The Apex Scheduler lets you delay execution so that you can run Apex classes at a specified time. This is ideal for daily or weekly maintenance tasks using Batch Apex. To take advantage of the scheduler, write an Apex class that implements the Schedulable interface, and then schedule it for execution on a specific schedule.

Schedulable Apex Syntax :

To invoke Apex classes to run at specific times, first implement the Schedulable interface for the class. Then, schedule an instance of the class to run at a specific time using the System.schedule() method.

After you implement a class with the Schedulable interface, use the System.schedule() method to execute it. The System.schedule() method uses the user's timezone for the basis of all schedules, but runs in system mode—all classes are executed, whether or not the user has permission to execute the class.

SYNTAX :

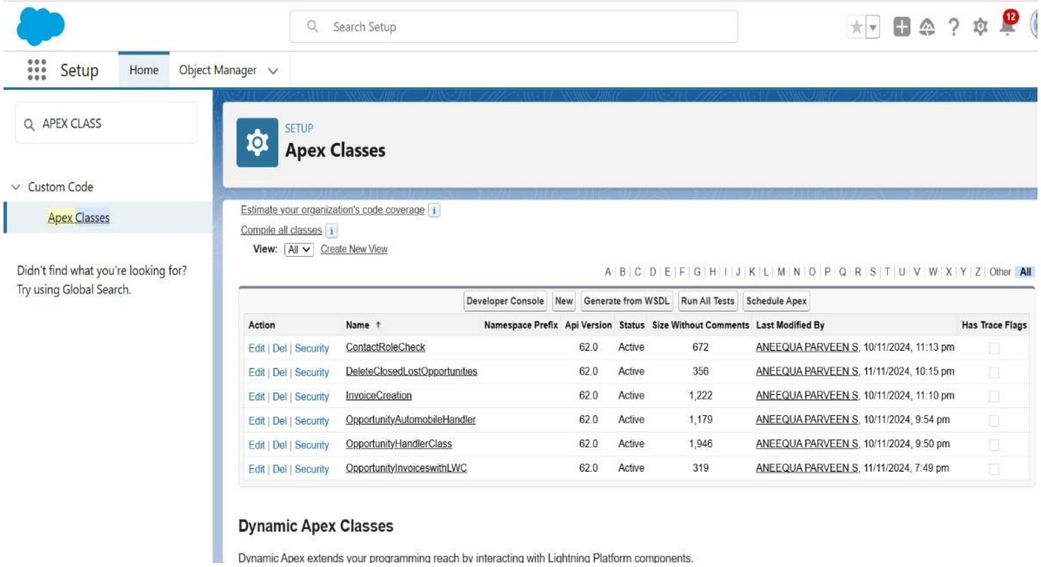
```
public class SomeClass implements Schedulable {
public void execute(SchedulableContext ctx) {
      // awesome code here
   }
}
```

Delete opportunity Schedule Class Schedule

the Apex class:

- Go to the Home page in your salesforce account.
- In the search bar, enter Apex and click on Apex Classes Click on Schedule Apex and enter the Job name

Job Name : DeleteOpportunitySchedule


Search Setup
Setup
Home
Object Manager
APEX CLASS
Custom Code
Apex Classes
Didn't find what you're looking for? Try using Global Search.
SETUP
Apex Classes
Estimate your organization's code coverage
Compile all classes
View: All
Create New View
A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other | All
Developer Console
New
Generate from WSDL
Run All Tests
Schedule Apex

Action	Name ↑	Namespace Prefix	Api Version	Status	Size Without Comments	Last Modified By	Has Trace Flags
Edit | Del | Security	ContactRoleCheck		62.0	Active	672	ANEEQUA PARVEEN S, 10/11/2024, 11:13 pm	□
Edit | Del | Security	DeleteClosedLostOpportunities		62.0	Active	356	ANEEQUA PARVEEN S, 11/11/2024, 10:15 pm	□
Edit | Del | Security	InvoiceCreation		62.0	Active	1,222	ANEEQUA PARVEEN S, 10/11/2024, 11:10 pm	□
Edit | Del | Security	OpportunityAutomobileHandler		62.0	Active	1,179	ANEEQUA PARVEEN S, 10/11/2024, 9:54 pm	□
Edit | Del | Security	OpportunityHandlerClass		62.0	Active	1,946	ANEEQUA PARVEEN S, 10/11/2024, 9:50 pm	□
Edit | Del | Security	OpportunityInvoiceswithLWC		62.0	Active	319	ANEEQUA PARVEEN S, 11/11/2024, 7:49 pm	□

Dynamic Apex Classes

Dynamic Apex extends your programming reach by interacting with Lightning Platform components.

Fig:22

- **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.

Types of Reports in Salesforce

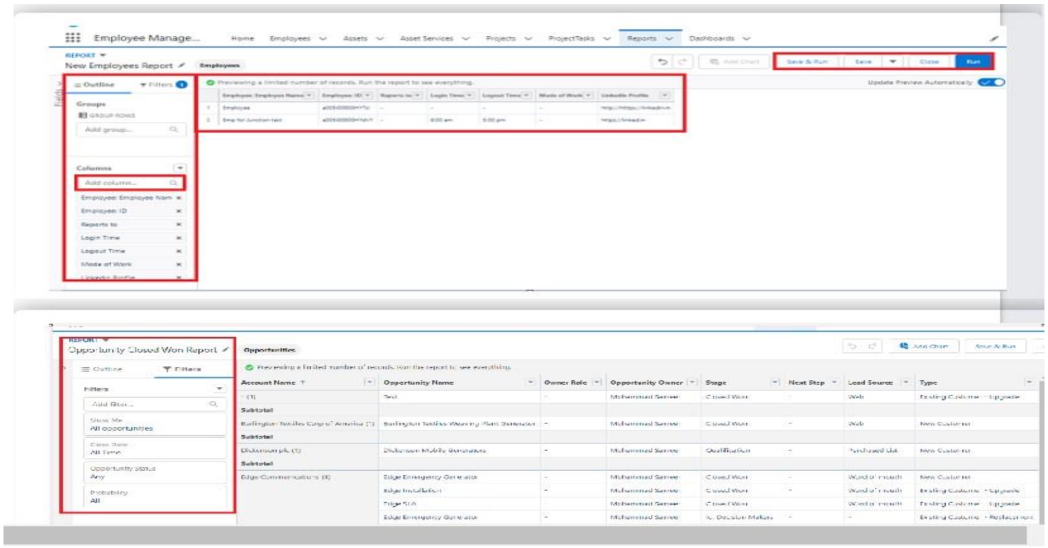
1. Tabular
2. Summary
3. Matrix
4. Joined Reports

Use Case:

The CEO of an organization wants to have brief data on Opportunity Sales along with Invoices generated.

Create Report on Opportunity

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



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

	Employee: Employee Name	Employee: ID	Reports to	Login Time	Logout Time	Mode of Work	LinkedIn Profile
1	Employee	[illegible]	-	-	-	-	http://https://linkedin.in
2	Emp for Junction test	[illegible]	-	9:00 am	5:00 pm	-	https://linkedin

Show Me
All opportunities

Close Date
All Time

Opportunity Status
Any

Probability
All

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

Account Name	Opportunity Name	Owner Role	Opportunity Owner	Stage	Next Step	Lead Source	Type
- (1)	Test	-	Mohammad Sameer	Closed Won	-	Web	Existing Customer - Upgrade
Subtotal							
Burlington Textiles Corp of America (1)	Burlington Textiles Weaving Plant Generator	-	Mohammad Sameer	Closed Won	-	Web	New Customer
Subtotal							
Dickenson plc (1)	Dickenson Mobile Generators	-	Mohammad Sameer	Qualification	-	Purchased List	New Customer
Subtotal							
Edge Communications (4)	Edge Emergency Generator	-	Mohammad Sameer	Closed Won	-	Word of mouth	New Customer
	Edge Installation	-	Mohammad Sameer	Closed Won	-	Word of mouth	Existing Customer - Upgrade
	Edge SLA	-	Mohammad Sameer	Closed Won	-	Word of mouth	Existing Customer - Upgrade
	Edge Emergency Generator	-	Mohammad Sameer	Id. Decision Makers	-	-	Existing Customer - Replacement

Fig:23

- Select report type from category or from report type panel or from search panel >> click on start report.

- Add fields from left pane as shown below

Create Report on Automobile Information

1. Create a report with a report type: “Automobile Information”.

2. Create a Report by using “Opportunities with Opportunity Automobiles and Automobile” Report Type.

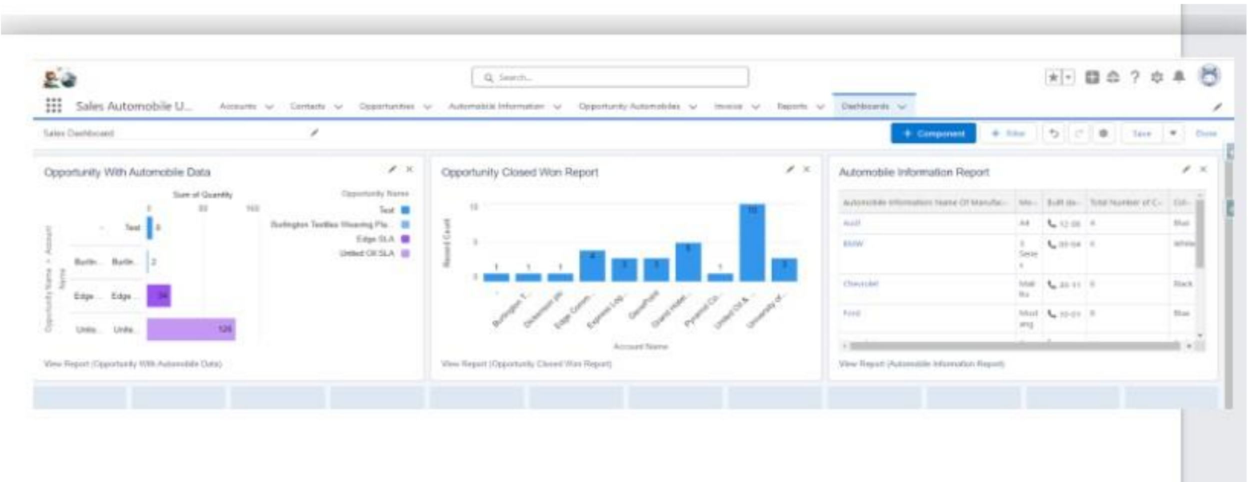
➢ Dashboard

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.

Sales Dashboard

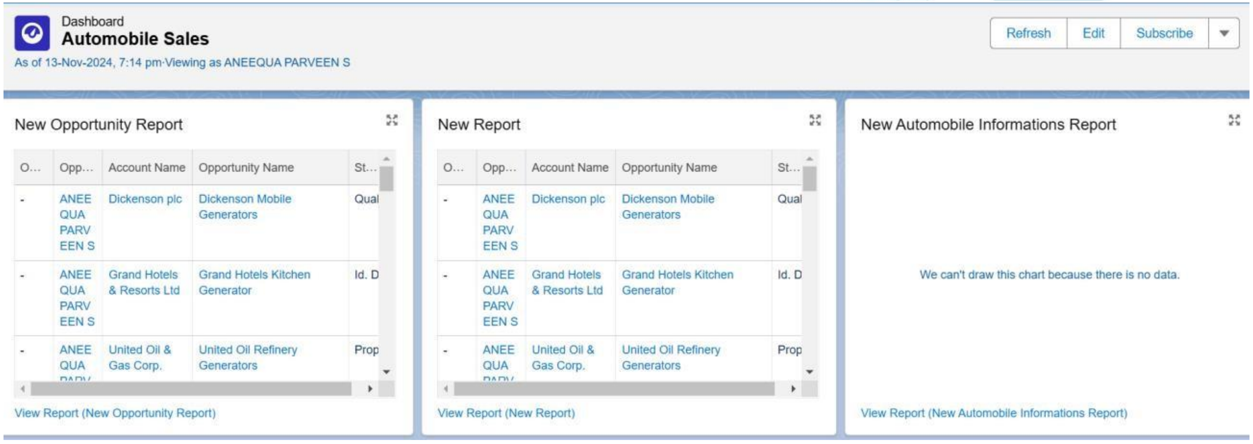
- Create Dashboard
- Select add component.
- Click Add then click on Save and then click on Done.

The Created Dashboard will look like this.



Automobile Information Name Of Manufac...	Mo...	Built da...	Total Number of C...	Col...
Audi	A4	☎ [illegible]	[illegible]	Blue
BMW	3 Series	☎ [illegible]	[illegible]	White
Chevrolet	Malibu	☎ [illegible]	[illegible]	Black
Ford	Mustang	☎ [illegible]	[illegible]	Blue

Fig:23



Dashboard
Automobile Sales
As of 13-Nov-2024, 7:14 pm·Viewing as ANEEQUA PARVEEN S

New Opportunity Report

O...	Opp...	Account Name	Opportunity Name	St...
-	ANEE QUA PARV EEN S	Dickenson plc	Dickenson Mobile Generators	Qual
-	ANEE QUA PARV EEN S	Grand Hotels & Resorts Ltd	Grand Hotels Kitchen Generator	Id. D
-	ANEE QUA PARV	United Oil & Gas Corp.	United Oil Refinery Generators	Prop

View Report (New Opportunity Report)

New Report

O...	Opp...	Account Name	Opportunity Name	St...
-	ANEE QUA PARV EEN S	Dickenson plc	Dickenson Mobile Generators	Qual
-	ANEE QUA PARV EEN S	Grand Hotels & Resorts Ltd	Grand Hotels Kitchen Generator	Id. D
-	ANEE QUA PARV	United Oil & Gas Corp.	United Oil Refinery Generators	Prop

View Report (New Report)

New Automobile Informations Report

We can't draw this chart because there is no data.

View Report (New Automobile Informations Report)

Fig:24

1.Detailed Steps to Solution Design:

- Consulted stakeholders to gather requirements specific to engineering workflows.
- Identified key CRM features to support customer interaction tracking, project status monitoring, and documentation management. 2. Salesforce Setup and Configuration:

2. Salesforce Setup and Configuration:

- Configured Salesforce instances with Sales Cloud.
- Created custom objects to accommodate data unique to engineering works (e.g., project specs, engineering documents).
- Set up roles and profiles to ensure data security and access control.

3. Data Modeling and Field Customization:

- Defined custom objects such as Projects, Clients, and Tasks.
- Added fields to capture essential data, including project start and end dates, budgets, materials used, etc.

4. Workflow Automation:

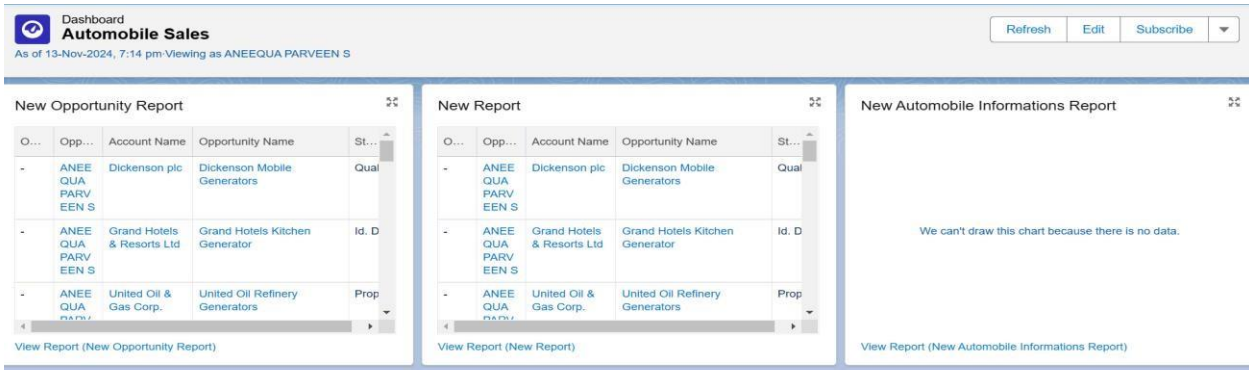
- Configured workflows to automate task assignments, lead conversions, and client follow-ups.
- Created rules that trigger email notifications for new leads or when projects reach critical milestones.

5. Integration with Engineering Tools:

- Integrated Salesforce with project management and engineering software to sync project updates in real time.
- Used APIs to allow seamless data transfer between Salesforce and other engineering tools.

6. Design of Dashboards and Reports:

- Developed dashboards to display key performance indicators, such as project progress, team efficiency, and client satisfaction.
- Created real-time reports for tracking the sales pipeline, revenue forecasts, and project health.



As of 13-Nov-2024, 7:14 pm·Viewing as ANEEQUA PARVEEN S

New Opportunity Report

O…	Opp…	Account Name	Opportunity Name	St…
-	ANEE QUA PARV EEN S	Dickenson plc	Dickenson Mobile Generators	Qual
-	ANEE QUA PARV EEN S	Grand Hotels & Resorts Ltd	Grand Hotels Kitchen Generator	Id. D
-	ANEE QUA	United Oil & Gas Corp.	United Oil Refinery Generators	Prop

View Report (New Opportunity Report)

New Report

O…	Opp…	Account Name	Opportunity Name	St…
-	ANEE QUA PARV EEN S	Dickenson plc	Dickenson Mobile Generators	Qual
-	ANEE QUA PARV EEN S	Grand Hotels & Resorts Ltd	Grand Hotels Kitchen Generator	Id. D
-	ANEE QUA	United Oil & Gas Corp.	United Oil Refinery Generators	Prop

View Report (New Report)

New Automobile Informations Report

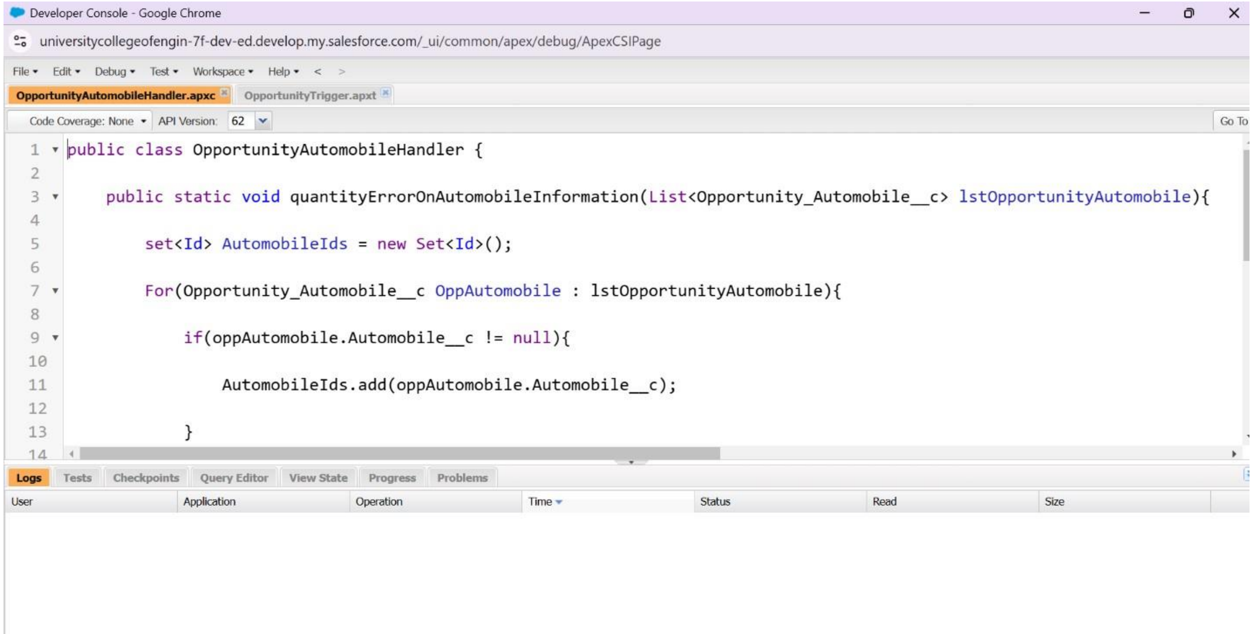
We can't draw this chart because there is no data.

View Report (New Automobile Informations Report)

Fig:25

5. Testing and Validation

- Unit Testing: Validated each Salesforce module separately, including lead management, sales tracking, and customer follow-up features, ensuring individual functionalities work as expected.
- System Testing: Tested the entire CRM setup for seamless integration of all Salesforce features, including custom objects, workflows, and automation, to confirm they function cohesively.
- User Acceptance Testing (UAT): Conducted UAT with dealership stakeholders, confirming that the CRM solution met business requirements for automobile sales, lead tracking, and customer engagement.
- Load Testing: Tested system performance under various loads to ensure it could handle high traffic during peak sales periods, such as holiday promotions or sales events.

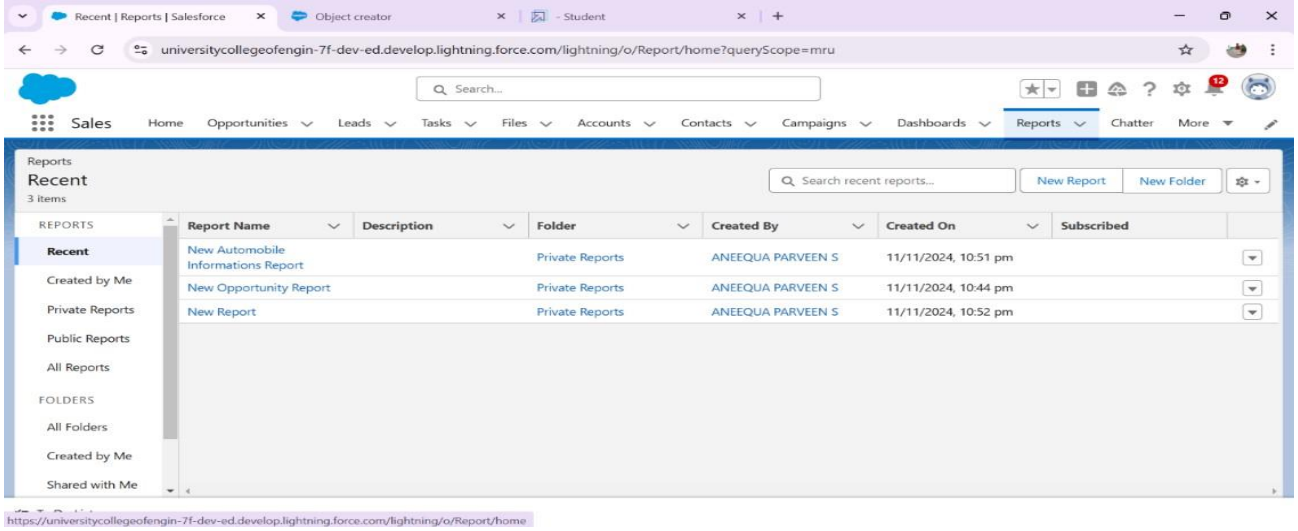

Developer Console - Google Chrome
universitycollegeofengin-7f-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage
File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < >
OpportunityAutomobileHandler.apxc
OpportunityTrigger.apxt
Code Coverage: None ▾
API Version: 62
Go To
Logs
Tests
Checkpoints
Query Editor
View State
Progress
Problems
User
Application
Operation
Time ▾
Status
Read
Size

```
public class OpportunityAutomobileHandler {

    public static void quantityErrorOnAutomobileInformation(List<Opportunity_Automobile__c> lstOpportunityAutomobile){

        set<Id> AutomobileIds = new Set<Id>();

        For(Opportunity_Automobile__c OppAutomobile : lstOpportunityAutomobile){

            if(oppAutomobile.Automobile__c != null){

                AutomobileIds.add(oppAutomobile.Automobile__c);

            }
```

Fig:26

6. Key Scenarios Addressed by Salesforce in The Implementation Process

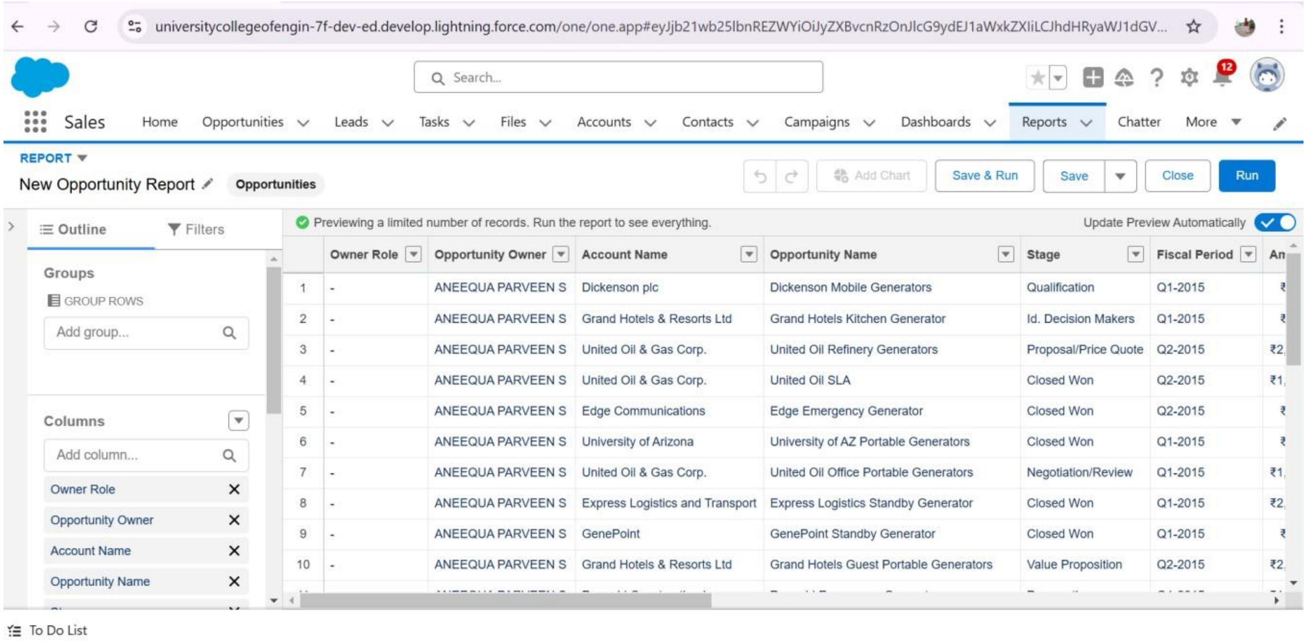
- **Lead Management**: Automated lead assignment to sales engineers, ensuring prompt follow-ups and reducing the chances of losing potential clients.
- **Project Lifecycle Tracking**: Allowed teams to track the status of each engineering project, from design and approval to implementation and delivery.
- **Client Communication and Documentation**: Centralized client communications and engineering documents within Salesforce for easy access and retrieval.
- **Forecasting and Budget Management:** Provided accurate forecasting of project costs and timelines to help engineers and managers make informed decisions.
- **Customer Feedback and Follow-Up**: Enabled tracking of customer satisfaction and automated reminders for post-project feedback collection.



Reports
Recent
3 items

Report Name	Description	Folder	Created By	Created On	Subscribed
New Automobile Informations Report		Private Reports	ANEEQUA PARVEEN S	11/11/2024, 10:51 pm	
New Opportunity Report		Private Reports	ANEEQUA PARVEEN S	11/11/2024, 10:44 pm	
New Report		Private Reports	ANEEQUA PARVEEN S	11/11/2024, 10:52 pm	

Fig:27



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

	Owner Role	Opportunity Owner	Account Name	Opportunity Name	Stage	Fiscal Period	An
1	-	ANEEQUA PARVEEN S	Dickenson plc	Dickenson Mobile Generators	Qualification	Q1-2015	₹
2	-	ANEEQUA PARVEEN S	Grand Hotels & Resorts Ltd	Grand Hotels Kitchen Generator	Id. Decision Makers	Q1-2015	₹
3	-	ANEEQUA PARVEEN S	United Oil & Gas Corp.	United Oil Refinery Generators	Proposal/Price Quote	Q2-2015	₹2,
4	-	ANEEQUA PARVEEN S	United Oil & Gas Corp.	United Oil SLA	Closed Won	Q2-2015	₹1,
5	-	ANEEQUA PARVEEN S	Edge Communications	Edge Emergency Generator	Closed Won	Q2-2015	₹
6	-	ANEEQUA PARVEEN S	University of Arizona	University of AZ Portable Generators	Closed Won	Q1-2015	₹
7	-	ANEEQUA PARVEEN S	United Oil & Gas Corp.	United Oil Office Portable Generators	Negotiation/Review	Q1-2015	₹1,
8	-	ANEEQUA PARVEEN S	Express Logistics and Transport	Express Logistics Standby Generator	Closed Won	Q1-2015	₹2,
9	-	ANEEQUA PARVEEN S	GenePoint	GenePoint Standby Generator	Closed Won	Q1-2015	₹
10	-	ANEEQUA PARVEEN S	Grand Hotels & Resorts Ltd	Grand Hotels Guest Portable Generators	Value Proposition	Q2-2015	₹2,

Fig:28

8. Conclusion

This CRM application for automobile sales successfully streamlined client relationship management, sales tracking, and customer communication. Salesforce's extensive CRM capabilities provide an efficient, data-driven solution for managing customer relationships and overseeing the automobile sales process.