

Vehicle Management System Using Salesforce - (Developer)

INTRODUCTION:

Vehicle Management is an application where a customer Details are stored in order to choose cars, bikes and commercial vehicles for travel within the city. The data which is stored here, further used to remind them if any offers are provided during the seasons and any updates regarding vehicles are sent to them in the form of messages and mails.

MILESTONE – 1:

SALESFORCE

Creating Developer Account

- Creating Developer Account
- Creating Developer Account
- Creating a developer org in salesforce.
- Go to developers.salesforce.com/ Click on sign up.
- On the sign up form, enter the following details :
- First name & Last name- Mandala Madhusudhan Rao
- Email- madhusudhanrao712@gmail.com
- Role : Developer
- Company : Gayatri degree college, Tirupati
- County : India
- Postal Code : 517501
- Username :madhusudhanrao@gdc.project
- Click on sign up after filling these.

Account Activation

1.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, as

2.Login To Your Salesforce Account

MILESTONE-2

OBJECT:

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

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

Standard Objects: Account, Contact, Opportunity.

Custom objects: Vehicle, Driver, Traveler.

To Create An Object:

For this Vehicle Management we need to create three custom objects i.e. Vehicles, Driver and Traveler.

The below steps will assist you in creating those objects.

- Click on the gear icon and then select Setup.
- Click on the object manager tab just beside the home tab.
- After the above steps, have a look on the extreme right you will find a Create Dropdown click on that and select Custom Object.

On the Custom Object Definition page, create the object as follows:

- Label: Vehicle
- Plural Label: Vehicles
- Record Name: Vehicle Name
- Check the Allow Reports checkbox
- Check the Allow Search checkbox
- Click Save.
- Now create a custom tab. Click the Home tab, enter Tabs in Quick Find and select Tabs.
- Under Custom Object Tabs, click New.
- For Object, select Vehicle.
- For Tab Style, select any icon.
- Leave all defaults as is. Click Next, Next, and Save.

To Create The Driver Object

For this Vehicle Management we need to create three custom objects i.e. Vehicles, Driver and Traveler.

The below steps will assist you in creating those objects.

- Click on the gear icon and then select Setup.
- Click on the object manager tab just beside the home tab.
- After the above steps, have a look on the extreme right you will find a Create Dropdown click on that and select Custom Object.

On the Custom Object Definition page, create the object as follows:

- Label: Driver
- Plural Label: Drivers
- Record Name: Driver Name
- Check the Allow Reports checkbox
- Check the Allow Search checkbox
- Click Save.
- Now create a custom tab. Click the Home tab, enter Tabs in Quick Find and select Tabs.
- Under Custom Object Tabs, click New.
- For Object, select Driver.
- For Tab Style, select any icon.
- Leave all defaults as is. Click Next, Next, and Save.

To Create TheTraveler Object

For this Vehicle Management we need to create three custom objects i.e. Vehicles, Driver and Traveler.

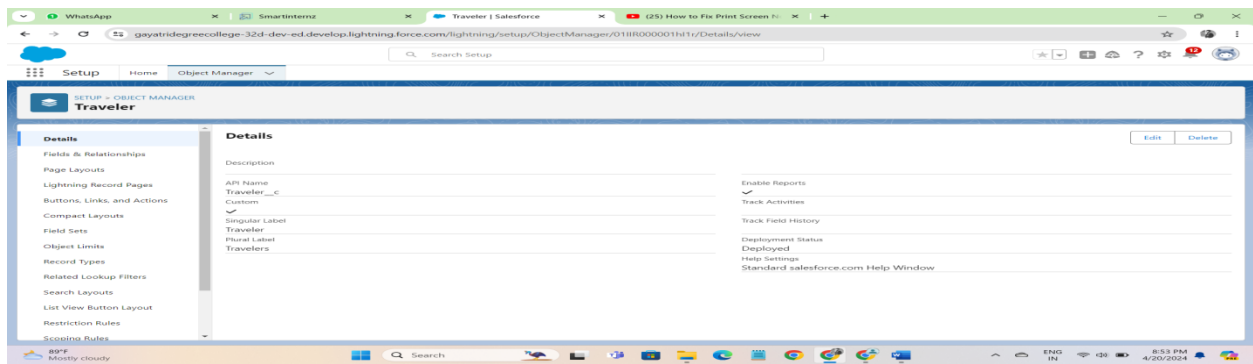
The below steps will assist you in creating those objects.

- Click on the gear icon and then select Setup.
- Click on the object manager tab just beside the home tab.
- After the above steps, have a look on the extreme right you will find a Create Dropdown click on that and select Custom Object.

On the Custom Object Definition page, create the object as follows:

- Label: Traveler
- Plural Label: Travelers
- Record Name: Traveler Name
- Check the Allow Reports checkbox
- Check the Allow Search checkbox
- Click Save.
- Now create a custom tab. Click the Home tab, enter Tabs in Quick Find and select Tabs.
- Under Custom Object Tabs, click New.

-



Fields And Relationship:

Creation Of Fields

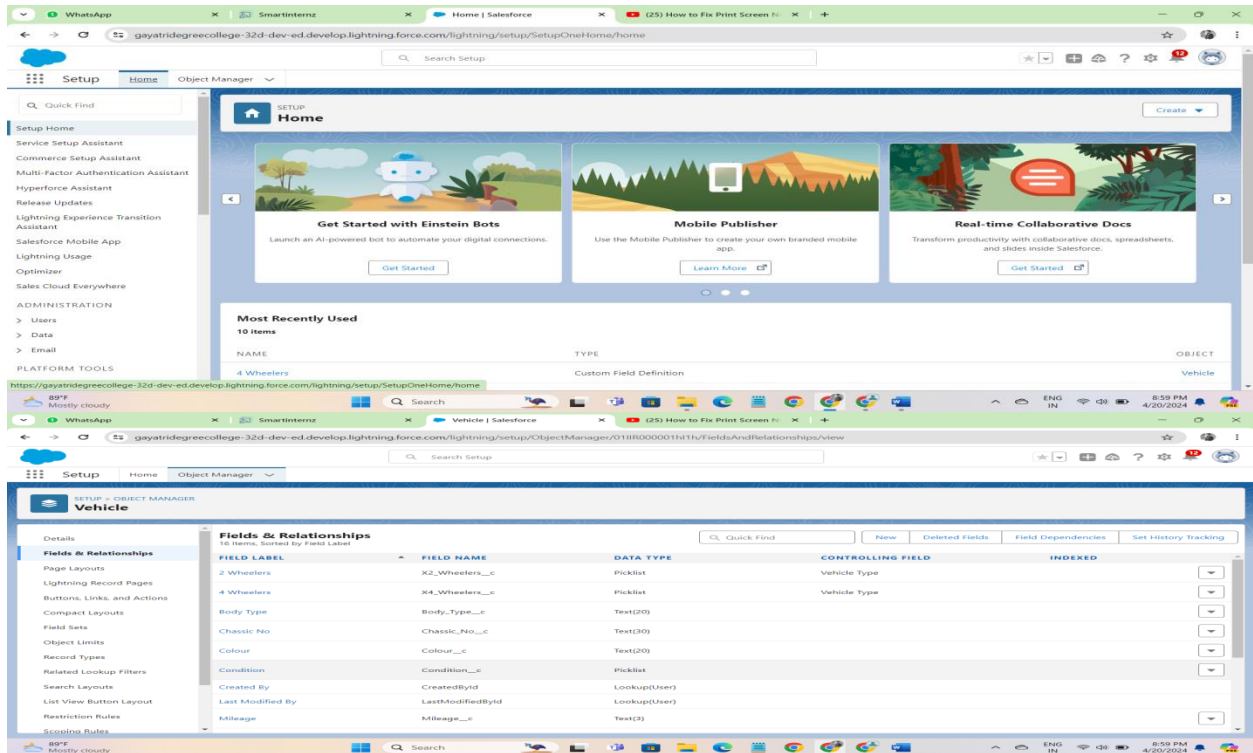
Fields in Vehicles objects follow below data types:

S NO.	Field Names	Type	Data Types
1.	Vehicle Name	Standard	Text
2.	Vehicle Type i)2 wheeler ii)4 wheeler	Custom	Picklist
3.	2WHEELERS i) HERO ii)HONDA iii)BAJAJ iv)ROYAL ENFIELD v)TVS vi)KINETIC vii)OLA viii)JAWA ix)SD x)BATTERY	Custom	Picklist
4.	4WHEELERS i) RENAULT ii)SKODA iii) HONDA iv)HYUNDAI v)SUZUKI	Custom	Picklist
	vi)MAHINDRA vii)VOLVO viii)AUDI ix)Volkswagen		
5.	Vehicle No	Custom	Text (20)
6.	Chassic No	Custom	Text (30)
7.	Colour	Custom	Text (20)
8.	Body Type	Custom	Text (20)

9.	Vehicle Includes <ul style="list-style-type: none"> • Fire Extinguisher • FirstAid Kit • Multi • Charger kit • Stepney • Stereo • Tool Kit • Tracking Device • Tyre • Jack 	Custom	Multi Picklist
10.	Condition i) Good ii)Medium iii) Least	Custom	Picklist
11.	Mileage	Custom	Text (3)
12.	Seats	Custom	Number (2)

The below steps will assist you in creating Fields.

- 1.Click on the gear icon and then select Setup.
- 2.Click on the object manager tab just beside the home tab.
- 3.Search object (Vehicle) in quick find box.
- 4.Click fields & relationships and click new
- 5.Select any data type click next
- 6.Enter fie



Fields In Vehicle Object

Create a dependency between these two picklists, so that when a Vehicle type is selected, only respective 2Wheeler Brands are available in the 2Wheeler field, similarly for 4Wheeler.

The below steps will assist you in creating Field Dependencies.

1. Click on the gear icon and then select Setup.
2. Click on the object manager tab just beside the home tab.
3. After the above steps, Select Vehicles Object
4. Now Select Fields and relationships from setup menu of the vehicle object.
5. Click Field Dependencies.
6. Click New.
7. Select Vehicle Type as the Controlling Field and select 2wheelers as the Dependent Field.
8. Click Continue.
9. Select the appropriate 2 wheelers Brands in each column by double-clicking them.

2 WHEELERS :

i) HERO

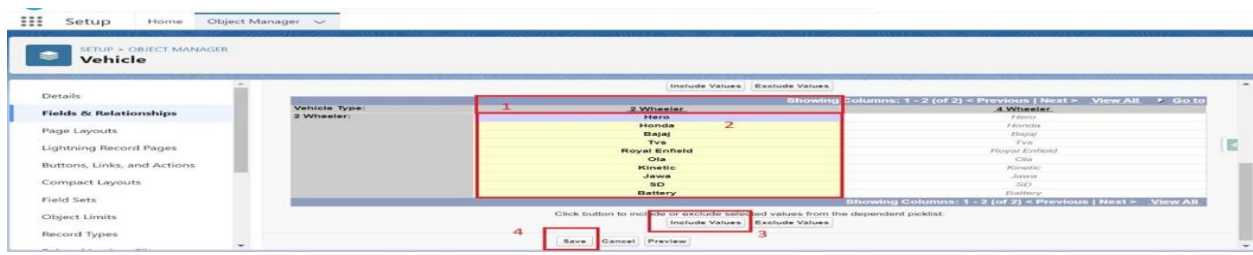
ii) HONDA

iii) BAJAJ

iv) ROYAL ENFIELD v) TVS

- vi) KINETIC
- vii) OLA
- viii) JAWA
- ix) SD
- x) BATTERY

1. Click Include Values.
2. Click Preview, then test the dependency by selecting different Vehicle Type and viewing the different Vehicles available for Vehicle Type.
3. Click Close to close the preview window.
4. Click Save.



Follow same steps for 4wheelers also

1. Vehicle Type as the Controlling Field and select 4wheelers as the Dependent Field.
2. Click Continue.
3. Select the appropriate 4wheelers Brands in each column by double-clicking them.
4. 4WHEELERS :
 - i) RENAULT
 - ii) SKODA
 - iii) HONDA
 - iv) HYUNDAI
 - v) SUZUKI
 - vi) MAHINDRA
 - vii) VOLKSWAGEN
 - viii) BENZ
 - ix) AUDI
 - x) VOLVO

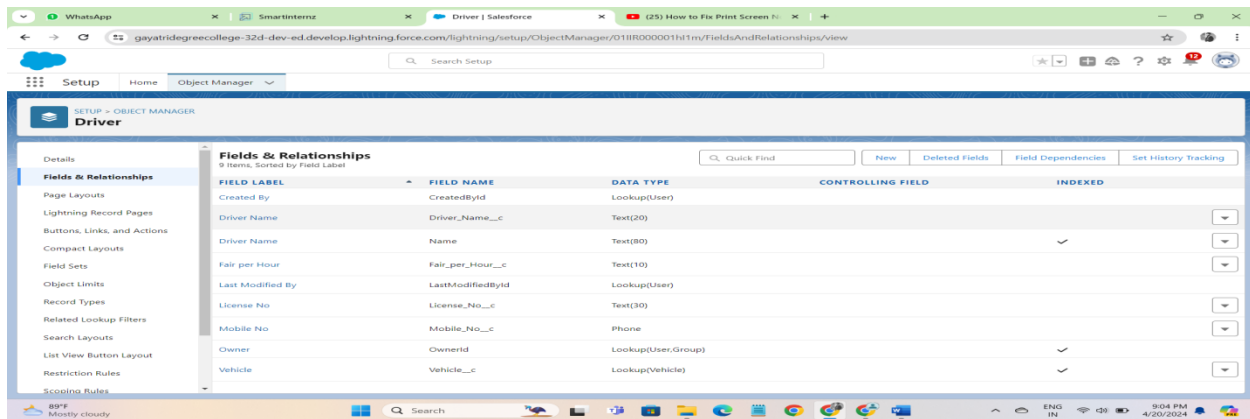
5. Click Include Values.
6. Click Preview, then test the dependency by selecting different Vehicle Type and viewing the different Vehicles available for Vehicle Type.
7. Click Close to close the preview window.
8. Click Save.

Fields In Driver Objects Follow Below Data Types

S No	Field	Type	Data Type
1	Driver Name	Standard	Text
2	License No	Custom	Text (30)
3	Mobile No	Custom	Phone
4	Fair Per Hour	Custom	Text (10)
5	Vehicle	Custom	Lookup (Vehicle)

Create a Lookup fields

1. Click fields & relationships and click new
2. Select Lookup relationship & click next
3. Choose the related object as Vehicle & click next
4. Give the field label & click next, next, next and Save.



Fields In Traveler Objects Follow Below Data Types

S No	Field	Type	Data Type
1	Traveler Name	Standard	Text
2	Traveler Contact No	Custom	Phone
3.	Traveler Email	Custom	Email

Fields In Opportunity Objects Follow Below Data Types

S No	Field	Type	Data Type
1	Vehicle	Custom	Lookup (Vehicle)
2	Journey Start Date	Custom	Date/Time
3	Journey End Date	Custom	Date/Time
4	Total Fair	Custom	Currency (8)
5	Route	Custom	Text(long)

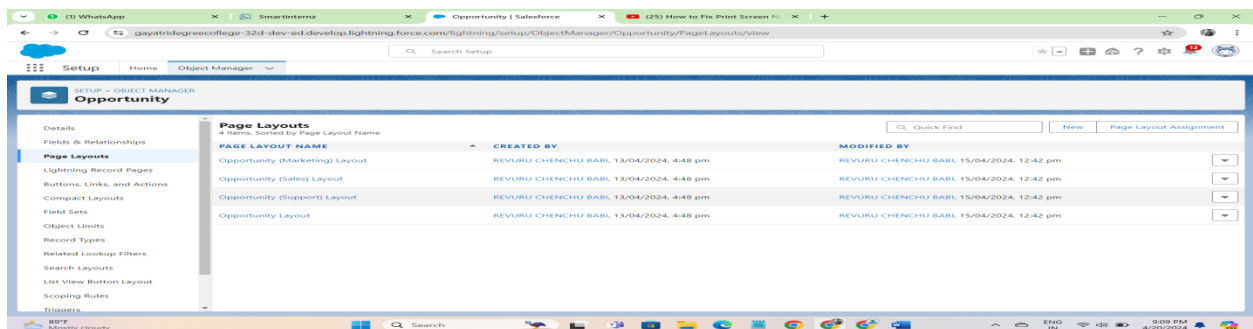
MILESTONE-4

Page Layout Setup:

Organize Opportunity Layout

Organize Opportunity layout

1. Click on the gear icon and then select Setup.
2. Click on the object manager tab just beside the home tab.
3. Search in quick find (Opportunity) & select Opportunity.
4. Click on page layout and you can add or remove fields by drag & drop



You can setup layout for all other objects and layouts.

MILESTONE-5

Lightning App:

Apps in Salesforce are a group of tabs that help the application function by working together as a unit. It has a name, a logo, and a particular set of tabs. The simplest app usually has just two tabs.

MILESTONE-6

Profile:

A profile is a group/collection of settings and permissions that define what a user can do in salesforce. A 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

Creating A Profile

Creating a Profile: Now create a Vehicle Manager profile and set it's object permissions.

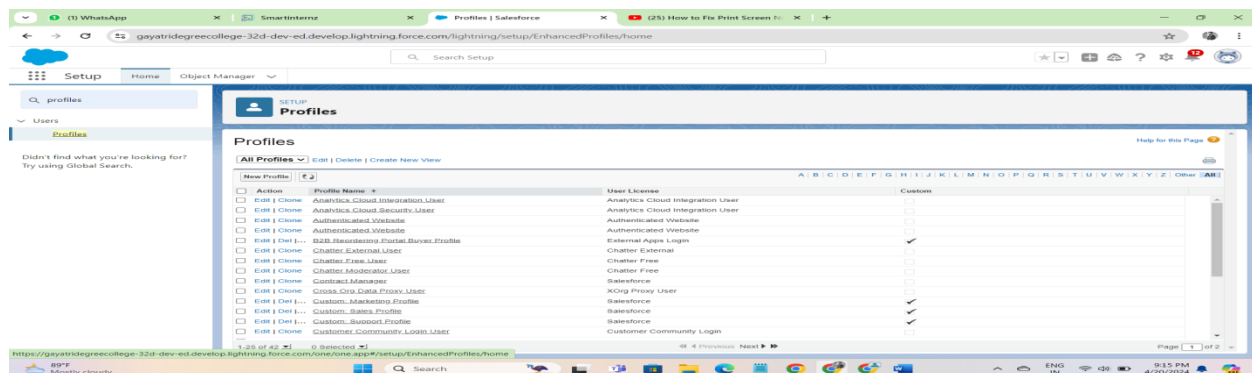
Creating a Profile:

Now create a Vehicle Manager profile and set its object permissions.

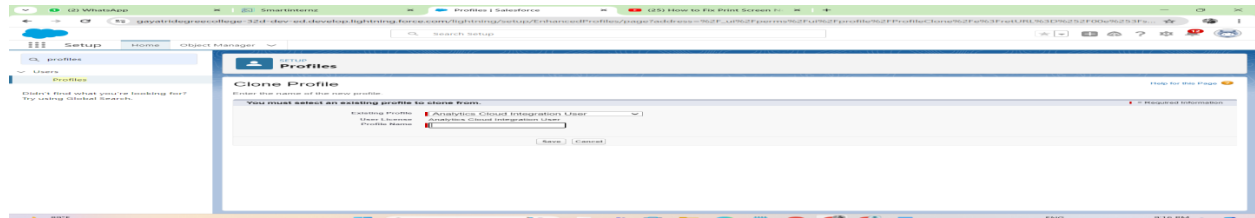
- 1.From Setup enter Profiles in the Quick Find box, and select Profiles.
- 2.From the list of profiles, find Standard User.
- 3.Click Clone.
- 4.For Profile Name, enter Vehicle Manager.
- 5.Click Save.
- 6.While still on the Vehicle Manager Profile page, then click Edit.
- 7.Scroll down to Custom Object Permissions and give access for Create, Read, Edit, and Delete, View all and modify all for Vehicle object Driver object and Traveler object.

To create a new profile:

- Go to setup -> type profiles in quick find box -> click on profiles -
- >clone the desired profile (standard user is preferable) -> enter profile name -
- > save



Enter a Profile Name



Click on the new created profile



Scroll down to Custom Object Permissions and Give view all access permissions and assign to the parent profile.

Setup Roles

Setup Roles:

1. Click on the Gear Icon
2. Click "Setup"
3. In the Quick Find box, enter "Roles"
4. Click "Roles"
5. Click on "Set Up Roles"
6. Click "Expand All"
7. Under the CEO, click on "Add Role"
8. Fill up the Label as Vehicle Manager, Role Name Vehicle Manager.
9. Enter a Role name that will be displayed on Reports
10. Click on Save.

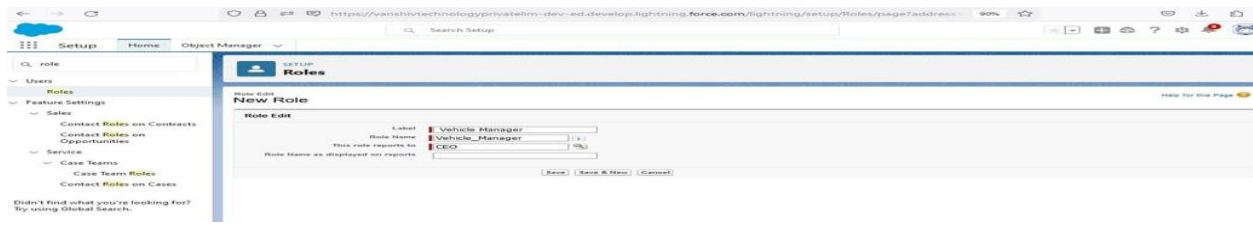
Similarly create Two Roles under Vehicle Manager as Operator 1 And Operator 2 Roles which will report to the Vehicle manager.



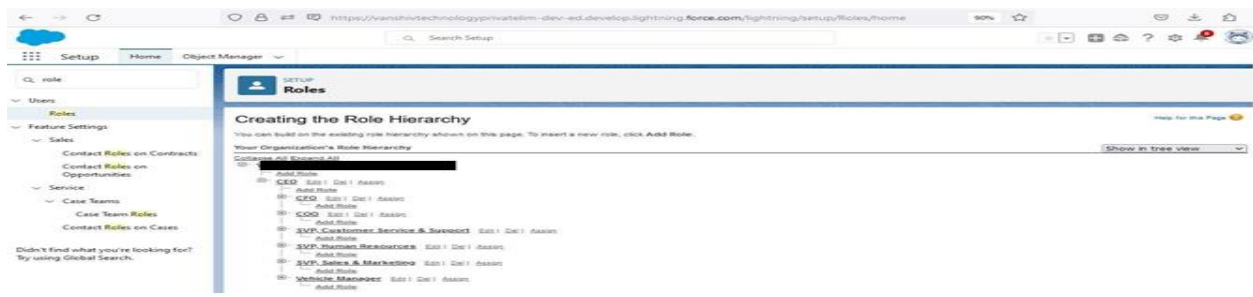
Click Add role under CEO



Enter Label name



Click Add roll under Vehicle Manager



Enter Roll Label name

MILESTONE-6

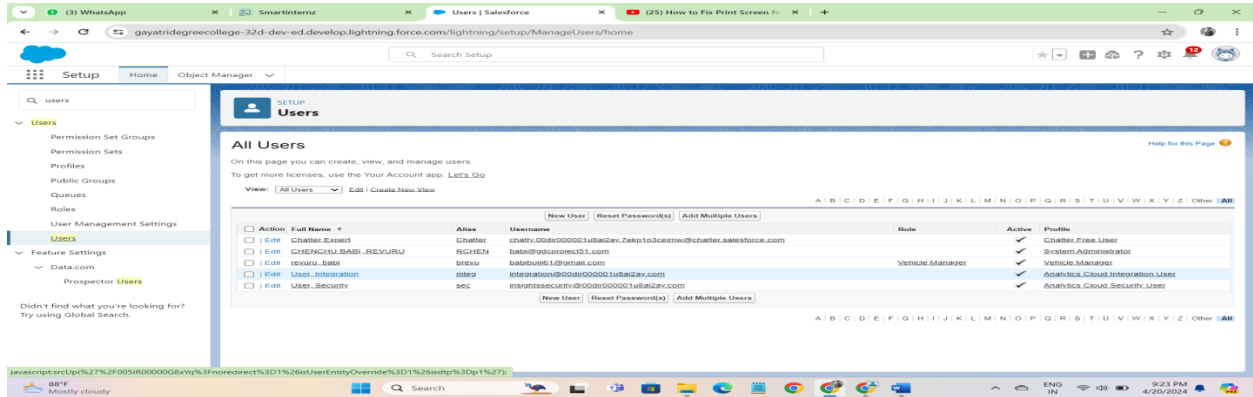
Users:

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.

NOTE- As Salesforce license can only be used by 2 Users at a time in Dev Org, so If you don't find salesforce license then deactivate a user who has salesforce license Or change the license type from Salesforce to any other.

Creating A User

- 1.From Setup, in the Quick Find box, enter Users, and then select Users.
- 2.Click New User.
- 3.Enter the user's name John Teddy and (Your) email address and a unique username in the form of an email address. By default, the username is the same as the email address.
- 4.Select a Role(Vehicle Manager)
- 5.Select a User License As salesforce.
- 6.Select a profile as Vehicle Manager.



Fill in the fields (first name, last name, alias, email id, username, nick name, role, user license, profiles)

7. Check Generate new password and notify the user immediately to have the user's login name and a temporary password emailed to your email.
8. Click On Save.
9. User will receive an email to reset password.
10. Once user will finish it, would be able to login and use the system.

Similarly Create other 2 users and assign operator 1 and operator 2 roles along with operator profile.

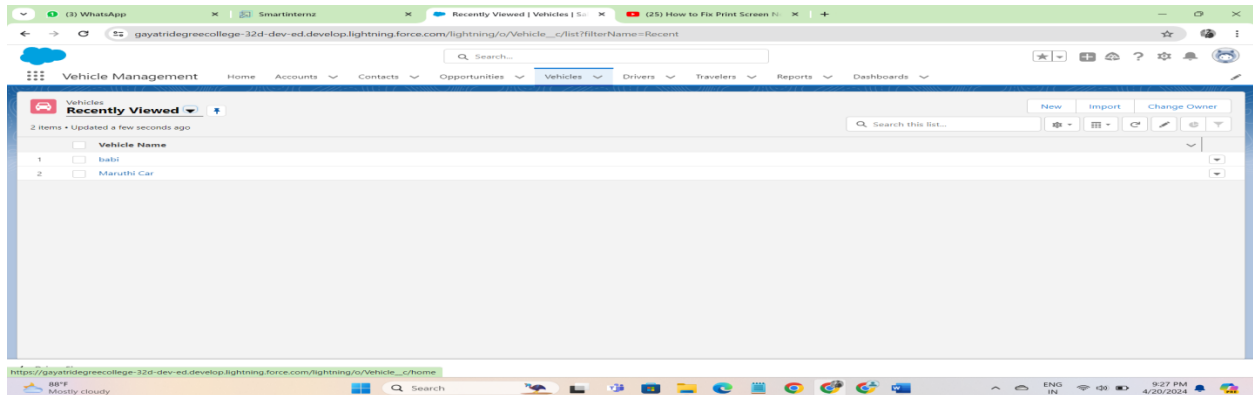
MILESTONE-7

User Adoption

We need to understand user adoption and navigation. How to interact with database and their records.

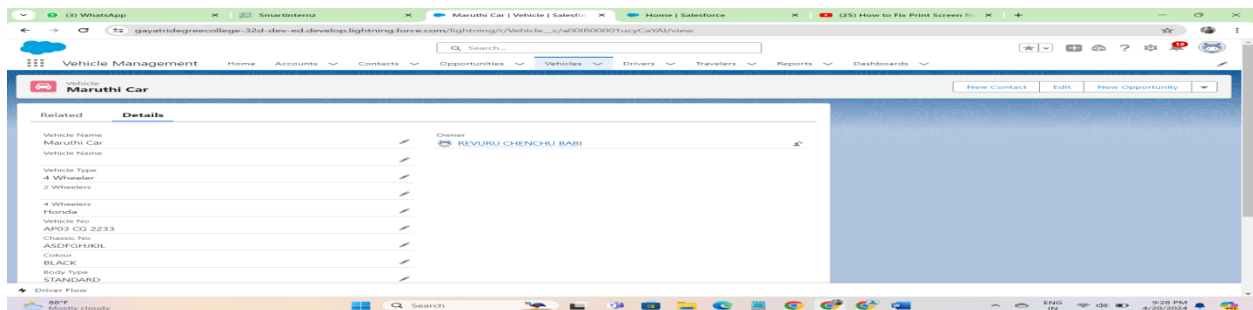
Create Vehicle Record:

1. Click on App Launcher on left side of screen.
2. Search Vehicle Management System & click on it.
3. Click on Vehicle tab.
4. Click new button
5. Fill all Vehicle record details.
6. Click on Save Button



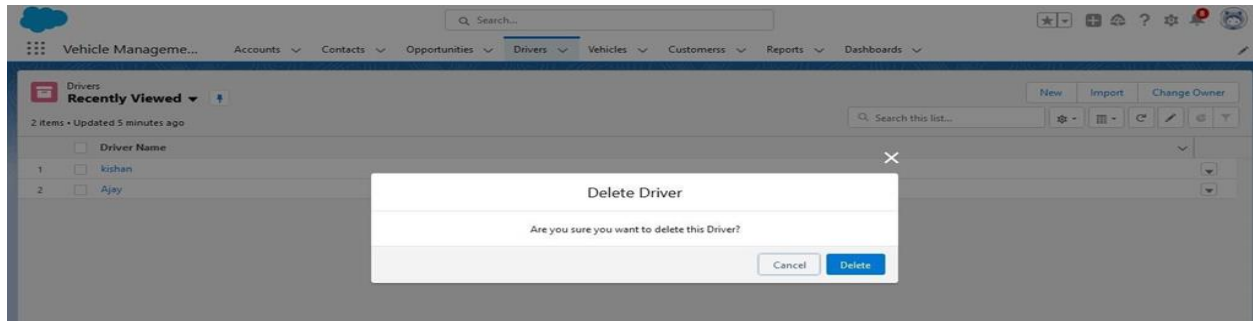
View Record (Vehicle)

1. Click on App Launcher on left side of screen.
2. Search Vehicle Management System & click on it.
3. Click on Vehicle Tab.
4. Click on any record name. you can see the details of the Vehicle



Delete Record (Vehicle)

1. Click on App Launcher on left side of screen.
2. Search Vehicle Management System & click on it.
3. Click on Vehicle Tab.
4. Click on Arrow at right hand side on that Particular record.
5. Click delete and delete again.



MILESTONE-8

Report & Dashboards:

A report is a list of records that meet the criteria you define. It's displayed in Salesforce in rows and columns, and can be filtered, grouped, or displayed in a graphical chart. Every report is stored in a folder. Folders can be public, hidden, or shared, and can be set to read-only or read/write.

Create Report

- 1.Go to Reports and click New Report.
- 2.Select the Opportunity and Customer Name report type and click Start Report.
- 3.To begin filtering, click Filters.
- 4.Click the Show Me standard filter and select All Opportunity. Click Apply.
- 5.Click on add columns add Opportunity: Opportunity name, Account Name, Amount, Traveler name etc.
- 6.Reports needs to be Grouped by one field.(ex - Created by)(require to enable add chart)
- 7.Click Save.
- 8.Save your report as Opportunity Details and accept the auto-generated unique name.

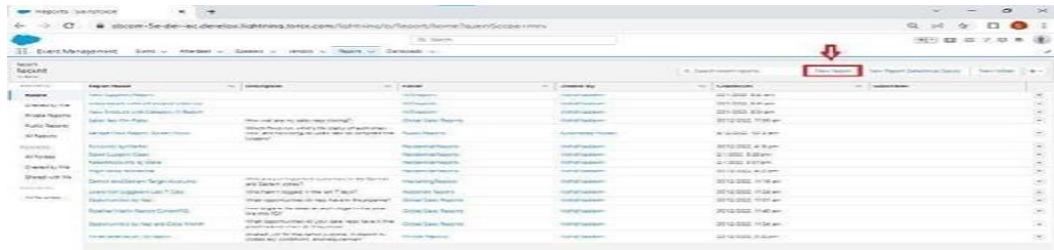
Create Dashboard

- 1.Click the Dashboards tab.
- 2.Click New Dashboard.
- 3.Name the dashboard Opportunity Details and click Create.
- 4.Click +Component.
- 5.Select the Opportunity Details and click Select.
- 6.Select the Vertical Bar Chart component and click Add.

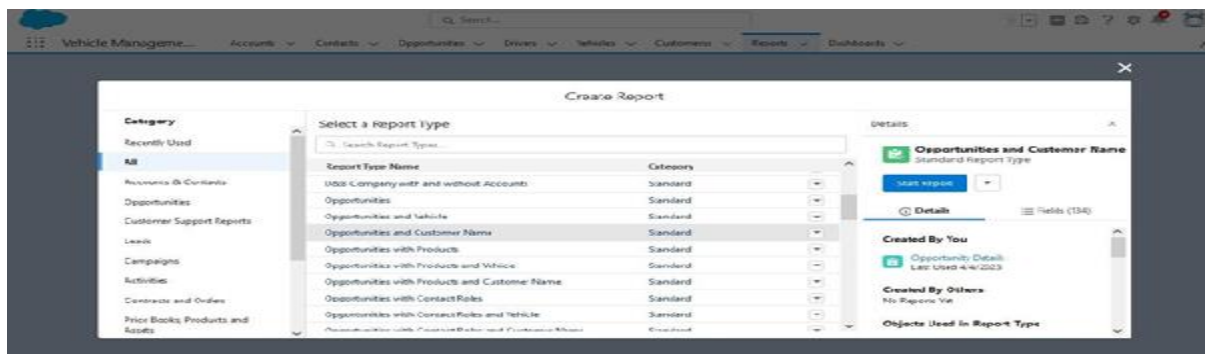
7. Click Save and then Done.

To create a report:

Go to the app -> click on the reports tab



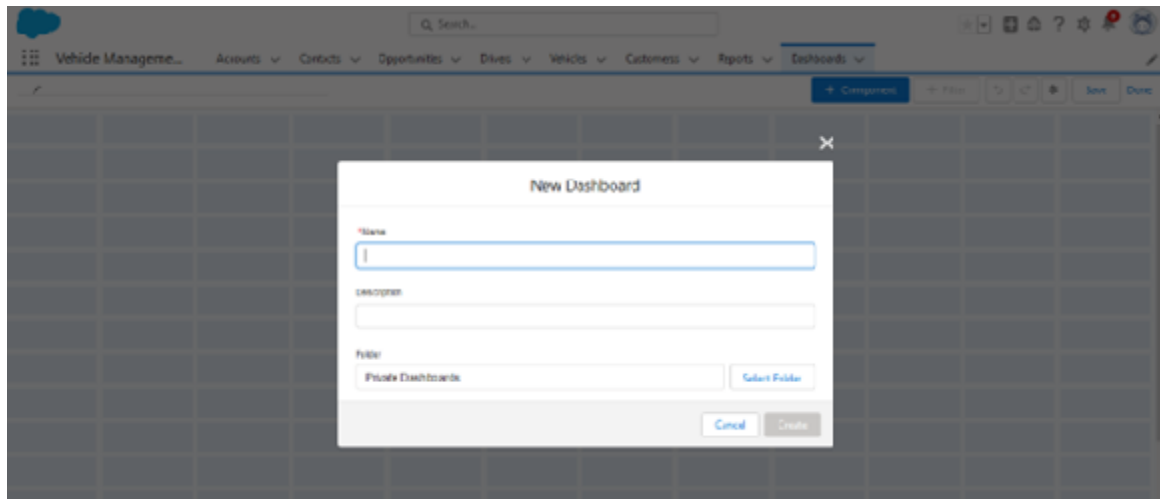
Select report type from category or from report type panel or from search panel ? click on start report.



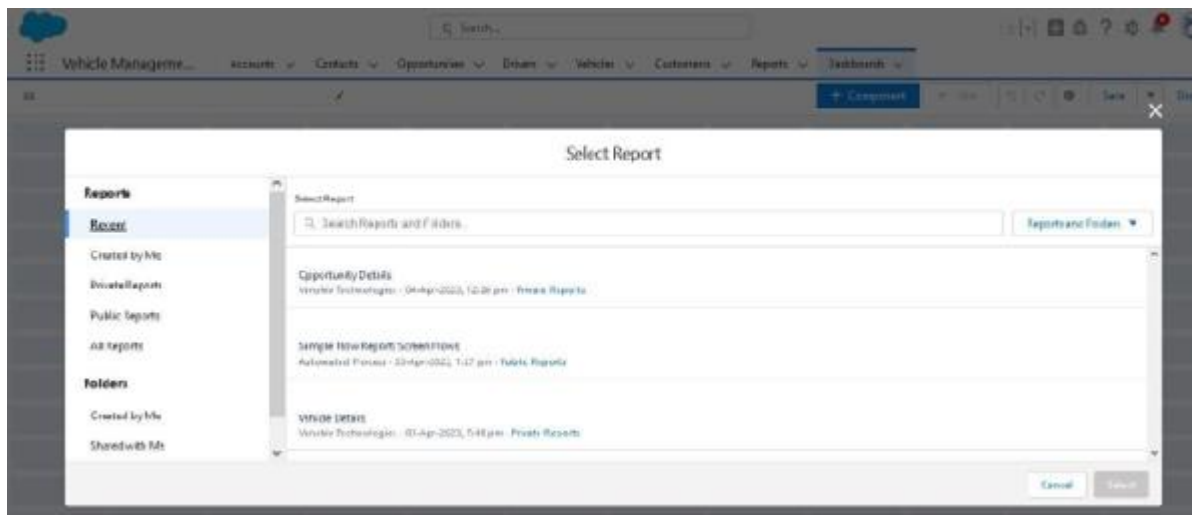
Customize your report, then save or run it.

Create a Dashboard

Click on Dashboard Tab and click new Dashboard Enter name



Click +component and select Opportunity details report and Save

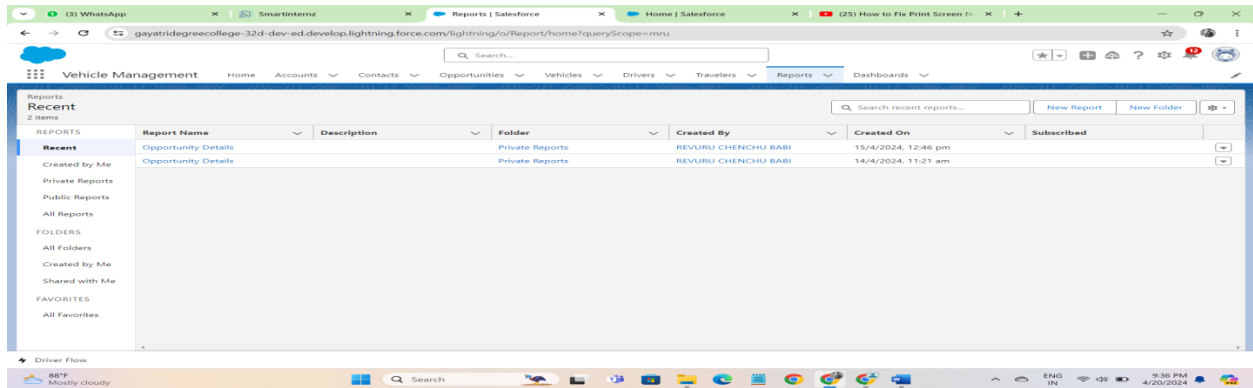


MILESTONE-9

Reporting:

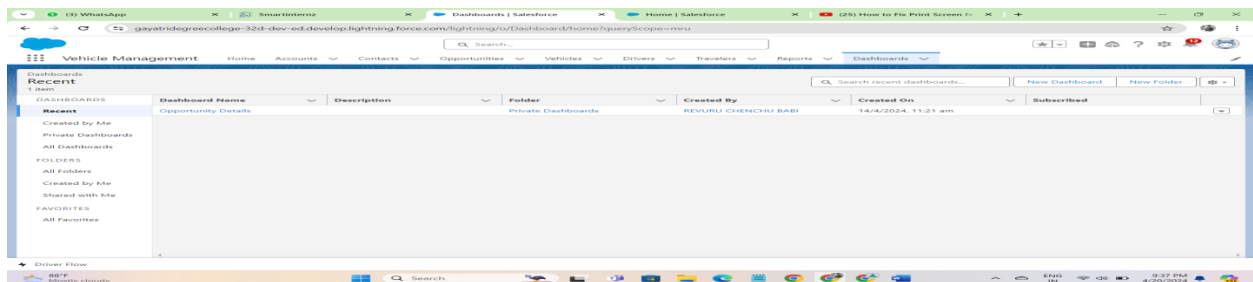
Report

- 1.Click on App Launcher on left side of screen.
- 2.Search Vehicle Management System & click on it.
- 3.Click on Reports Tab.
- 4.Click on Opportunity Details report and see records



Dashboard:

1. Click on App Launcher on left side of screen.
2. Search Vehicle Management System & click on it.
3. Click on Dashboard Tab.
4. Click on Opportunity and Dashboard and see graph view of records



MILESTONE-10

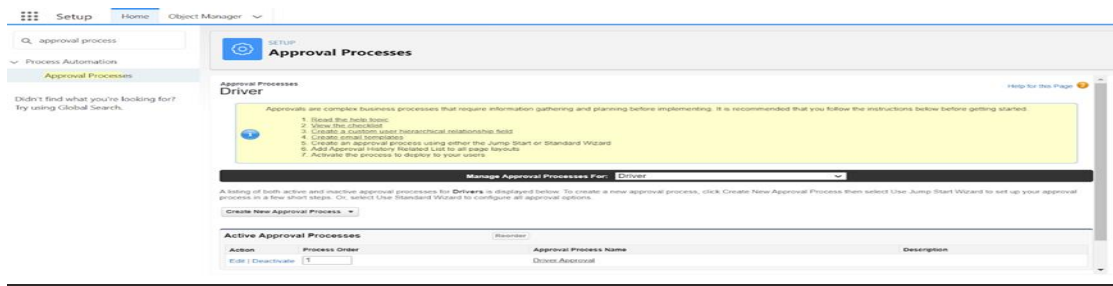
Approval Process:

The approval process in Salesforce is a powerful tool that allows you to automate and streamline the approval of records such as opportunities, leads, cases, and custom objects. It is a workflow process that is triggered when a record meets certain criteria and requires approval from one or more approvers before it can be moved forward in the sales process.

Creation Of Approval Process

Click Setup and select Setup.

1. Select Process Automation | Approval Processes (or use the Quick Find and search for Approval Processes)
2. In the Manage Approval Processes For list, select Driver.
3. Click Create New Approval Process and select Use Jump Start Wizard.
4. Enter the following parameters

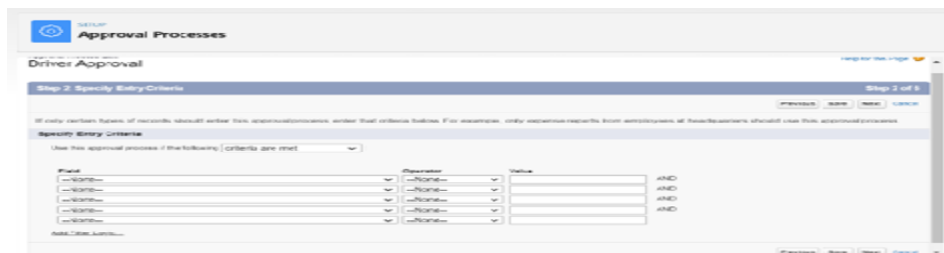
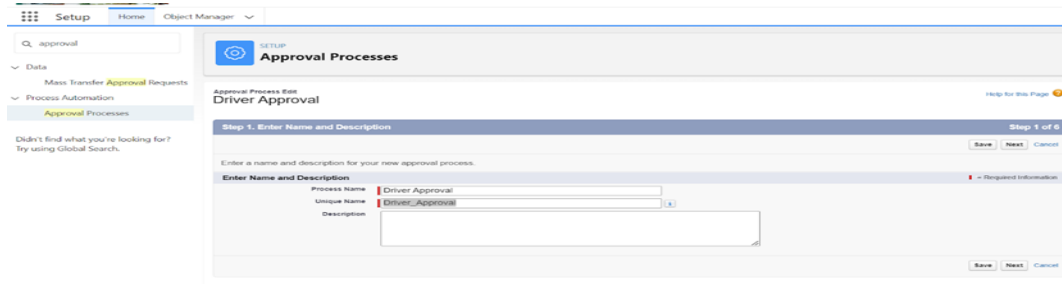


5. For manage approval process select the Driver from the drop down

6. For the process name: Driver Approval

Unique name: Driver_Approval

Click on next



7. Click on next.

8. Select Manager from drop down and Click on next.

Approval Processes

Approval Process Edit
Driver Approval

Step 3 of 6

When you define approval steps, you can assign approval requests to different users. One of your options is to use a user field to automatically route these requests. If you want to use this option for any of your approval steps, select a field from the picklist below. Also, when a record is in the approval process, it will always be locked-- only an administrator will be able to edit it. However, you may choose to also allow the currently assigned approver to edit the record.

Select Field Used for Automated Approval Routing

Next Automated Approver Determined By: **Manager**

Use Approver Field of Driver Owner: ☐

Record Editability Properties

☒ Administrators **ONLY** can edit records during the approval process.

☐ Administrators **OR** the currently assigned approver can edit records during the approval process.

9. Click on next.

10. Move Driver Name, Owner, Fair per hour, Mobile No to selected Fields and click on next

Approval Processes

Available Fields

- Created By
- Last Modified By
- Licence No
- Vehicle

Selected Fields

- Driver Name
- Owner
- Fair per Hour
- Mobile No

Buttons: Add, Remove, Up, Down

Click here to view all fields

Approval Page Fields

☐ Display approval history information in addition to the fields selected above.

Security Settings

☒ Allow approvers to access the approval page only from within the Salesforce application. (Recommended)

☐ Allow approvers to access the approval page from within the Salesforce application, or externally from a mobile enabled mobile device.

11. Move Driver owner to Allowed Submitters and save

Approval Processes

Approval Process Edit
Driver Approval

Step 5 of 6

Using this administration, specify which users are authorized to submit the initial request for approval. For example, a request might be submitted for approval only by those users.

Initial Submitters

Submitter Type: **Owner**

Allowed Submitters

- Driver Owner

Buttons: Add, Remove

Submission Settings

☐ Allow submitters to recall approval requests

12. Click on Save

MILESTONE-11

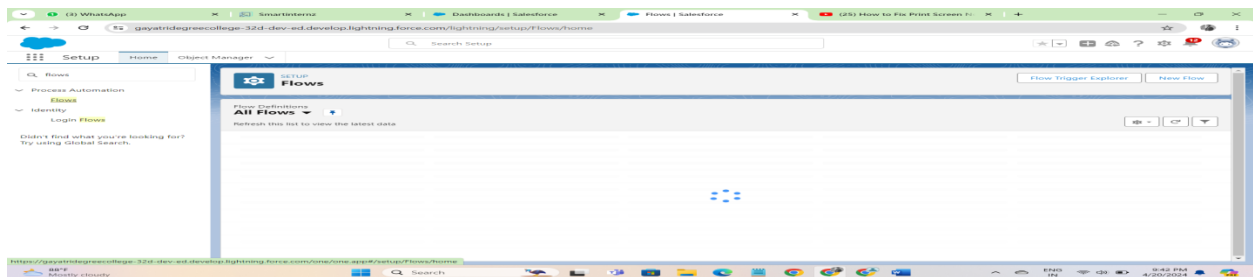
Screen Flow:

In Salesforce, flows are visual representations of business processes that can be created and managed using the Salesforce Flow Builder. Flows are designed to automate and streamline complex business processes, such as collecting data, updating records, and integrating with external systems, without writing any code.

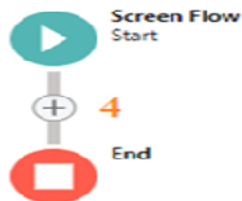
Screen Flows: Screen flows are flows that are designed to guide users through a series of screens to collect data or present information. They are typically used to create user-friendly data entry forms or wizards, and can include input fields, picklists, and other user interface components.

Creation Of Screen Flow:

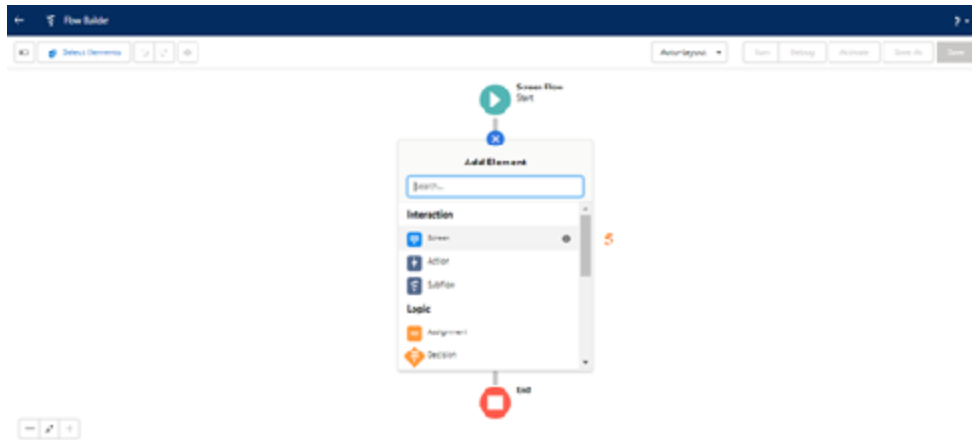
1. Click on Gear icon and select setup
2. In Quick find Box enter flow and select the flows
3. Click on New flow and Select Screen flow



4. It will open the canvas. Select (+)



5. Select the screen element from the drop down.



6. It will open the dialog box. Now give the label name and api name will be auto populated. These labels are for your screen Element.

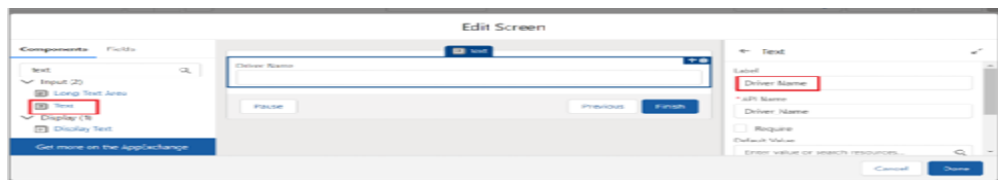
Label: Driver Info

API Name: Driver_Info (This field will be auto populated.)

7. In search Component type text and drag the text component to canvas and give the label and api Name

Label: Driver Name

API Name: Driver_Name (This field will be auto populated.)



8. In search Component type text and drag the text component to canvas and give the label and api Name

Label: Licence No

API Name: Licence_No (This field will be auto populated.)

9. In search Component type Number and drag the text component to canvas and give the label and Api Name

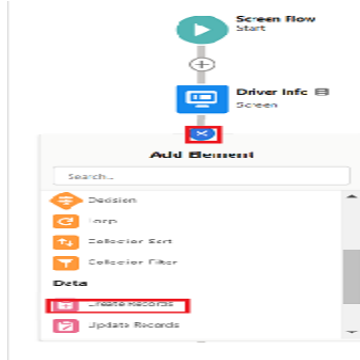
Label: Mobile No

API Name: Mobile_No (This field will be auto populated.)



10.Select (+)

11.In search bar search for Create records and select the create records

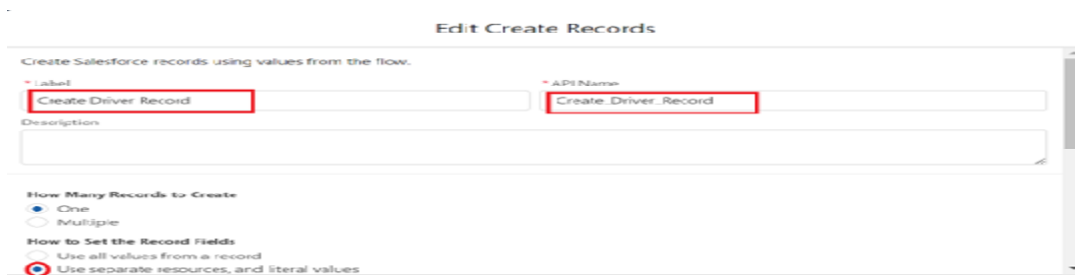


12.It will open you the details section and give the label as follows:

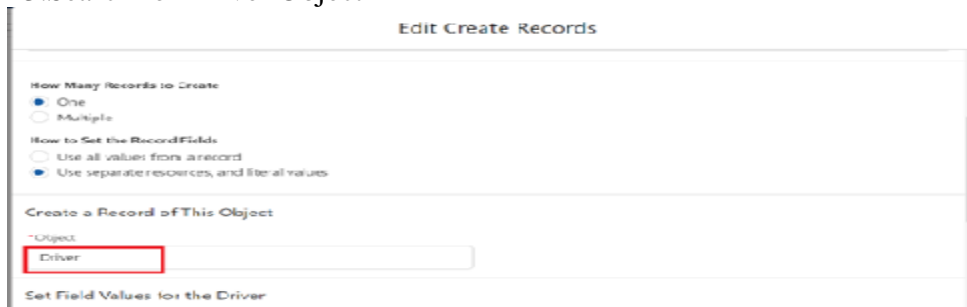
Label: Create Driver Record

API Name: Create_Driver_Record

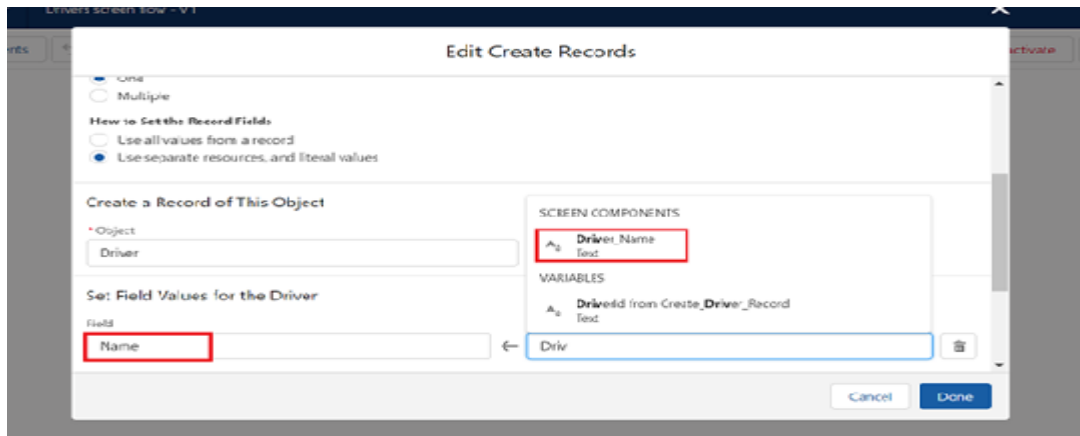
Then check the use separate resources and literal values



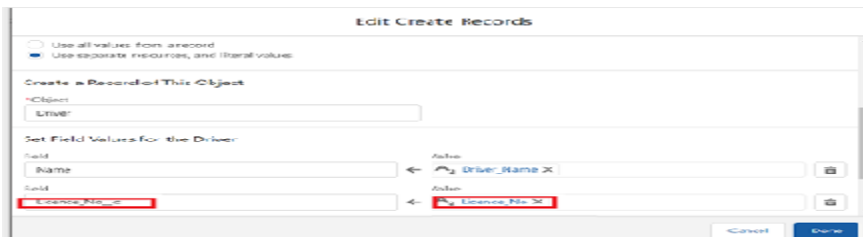
13.Search for Driver Object



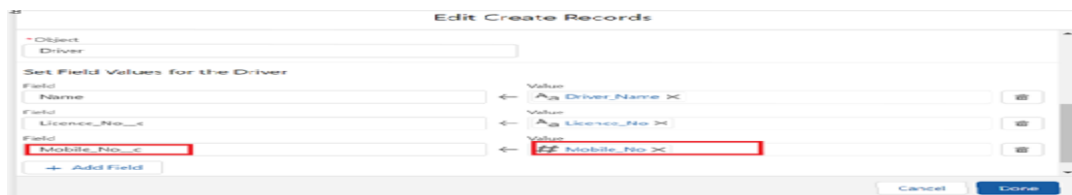
14.Under field type name and select the name and select the Driver_name under Screen Component



15. Similarly, under field type name and select the name and select the Licence_No under Screen Component



16. Similarly, under field type name and select the name and select the Mobile. No under Screen Component



17. Click on Done

18. Click on Save. It will open your details canvas and give the details as follows

Flow label: Driver flow

Flow API Name: Driver_flow (this will be auto populated)

19. Click on save

20. Click on the Activate.

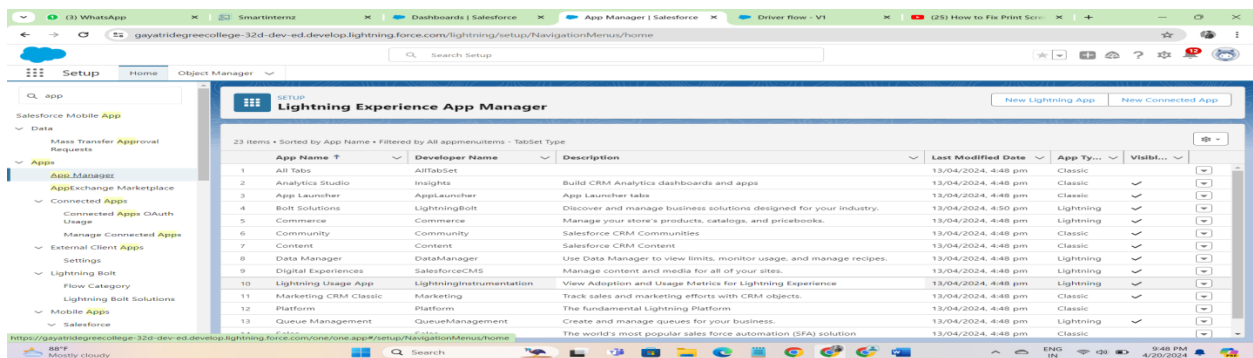
MILESTONE-12

App Page:

App page descriptions in Salesforce refer to the metadata and configuration settings that define the visual layout, functionality, and behaviour of custom app pages within a Salesforce org. App pages are created using the Salesforce App Builder, which is a visual drag-and-drop tool that allows users to create custom pages without writing code.

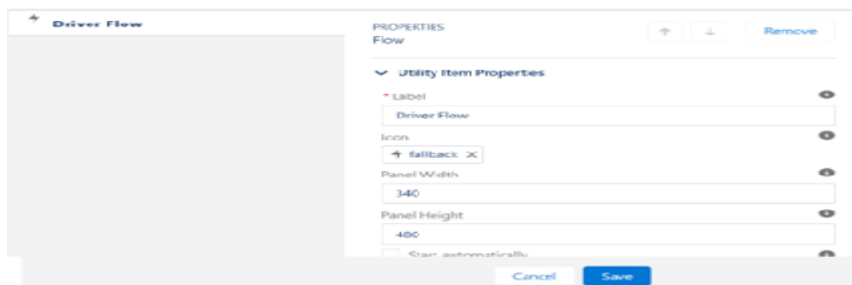
App Page Settings

1. Click on the Gear icon and select set up
2. In Quick Find box. Type App Manager and select the App Manager



3. Select Vehicle Management and Click on drop down beside and select Edit

4. Select Utility Items and Click on Add Utility Items
5. Search for Flow and click on flow
6. Now Label: Driver Flow



7.Scroll Down in Flow Select Driver Screen Flow

8.Click on Save.

9.Now Go to App Builder and Select Vehicle Management App

