Vehicle Management System using Salesforce

1 INTRODUCTION

1.1 Overview

Are you new to Salesforce? Not sure exactly what it is, or how to use it? Don't know where you should start on your learning journey? If you've answered yes to any of these questions, then you're in the right place. This module is for you. Welcome to Salesforce! Salesforce is game-changing technology, with a host of productivity-boosting features, that will help you sell smarter and faster. As you work toward your badge for this module, we'll take you through these features and answer the question, "What is Salesforce, anyway?"

1.2 Purpose

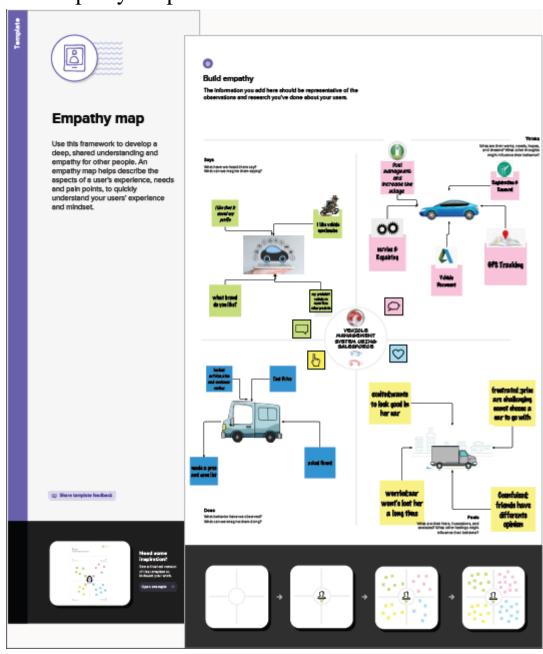
The purpose of vehicle management is to ensure that all vehicles are operating efficiently, safely, and cost-effectively.

In a business context, effective vehicle management can improve operational efficiency, reduce maintenance costs, and increase profitability. For example, a company that relies on a fleet of delivery trucks may use vehicle management software to track the location

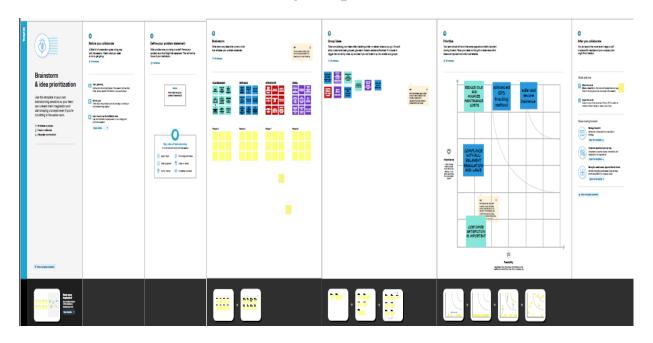
and performance of each vehicle, schedule regular maintenance, and monitor fuel consumption to identify cost-saving opportunities.

2 Problem Definition & Design Thinking

2.1 Empathy Map



2.2 Ideation & Brainstorming Map



3 RESULT

3.1 Data Model

OBJECT NAME	FIELDS IN THE OBJECT	
Customer Name		
	FIELD LABEL	DATA TYPE
	Customer Name	TEXT

Customer Mobile		
No	FIELD LABEL	DATA TYPE
	Customer Mobile No	NUMBER
Vehicle Type		
i)2 wheeler	FIELD LABEL	DATA TYPE
ii)4 wheeler	i)2 wheeler	PICKLIST
	ii)4 wheeler	

2WHEELERS		
i) HERO	FIELD LABEL	DATA TYPE
ii)HONDA	i) HERO	PICKLIST
iii)BAJAJ	ii)HONDA	
iv)ROYAL ENFIELD	iii)BAJAJ	
v)TVS	iv)ROYAL ENFIELD	
vi)KINETIC	v)TVS	
vii)OLA	vi)KINETIC	
viii)JAWA	vii)OLA	
ix)SD	viii)JAWA	
x)BATTERY	ix)SD	
	x)BATTERY	

	FIELD LABEL DATA
	TYPE
	i) RENAULT PICKLIST
	ii)SKODA
	iii) HONDA
	iv)HYUNDAI
4WHEELERS	v)SUZUKI
	vi)MAHINDRA
	vii)VOLKSWAGEN
	viii)BENZ
	ix)AUDI
	x)VOLVO
Vehicle	
Name	FIELD LABEL DATA TYPE
	Vehicle Name TEXT
Vehicle No	
	FIELD LABEL DATA TYPE
	Vehicle No TEXT

Chassic No		
	FIELD LABEL	DATA TYPE
	Chassic No	TEXT
Colour		
	FIELD LABEL	DATA TYPE
	Colour	TEXT
Body Type		
	FIELD LABEL	DATA TYPE
	Body Type	TEXT

Vehicle		
Includes	FIELD LABEL	DATA TYPE
	i)Fire Extenuation	Multi Picklist
	ii)First Aid Kit	
	iii)Multi Charger kit	
	iv)Stepney	
	v)Stereo	
	vi)Tool Kit	
	vii)Tracking Device	
	viii)Tyre Jack	
Condition		
	FIELD LABEL	DATA TYPE
	i)Good	PICKLIST
	ii)Medium	
	iii)Least	

Mileage		
	FIELD LABEL	DATA TYPE
	Mileage	TEXT
Seats		
	FIELD LABEL	DATA TYPE
	Seats	Number
Start Date		
	FIELD LABEL	DATA TYPE
	Start Date	Date/Time
End Date		
	FIELD LABEL	DATA TYPE
	End Date	Date/Time
Opportunity		
	FIELD LABEL	DATA TYPE
	Opportunity	Lookup(opportunities)

S No	Field	Data Type
1	Driver Name	Text
2	Licence No	Text
3	Mobile No	Number
4	Fair Per Hour	Text
5	Vehicle	Lookup(Vehicle)

3.2 Activity & Screenshot

Activity 1:

Creating Developer Account

Creating a developer org in salesforce.

- 1. Go to developers.salesforce.com/
- 2. Click on sign up.
- 3. On the sign up form, enter the following details:
- a. First name & Last name
- a. Email

b. Role: Developer

c. Company: College Name

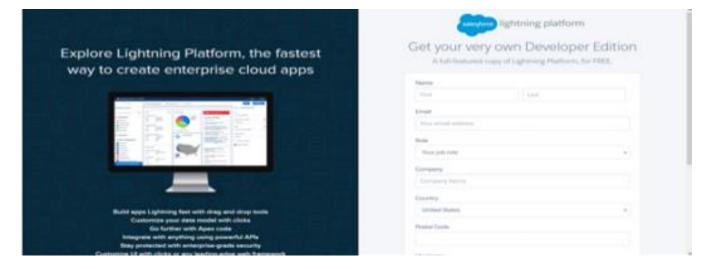
d. County: India

- e. Postal Code: pin code
- f. 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

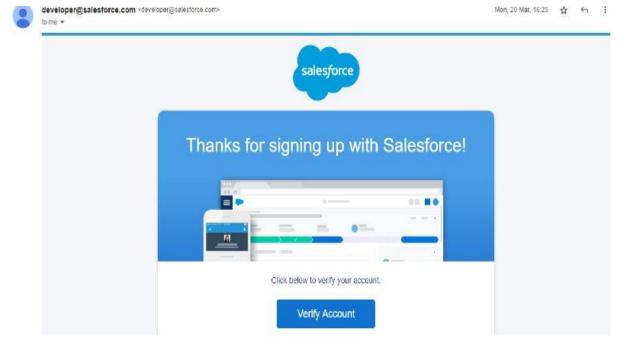
Click on sign up after filling these.

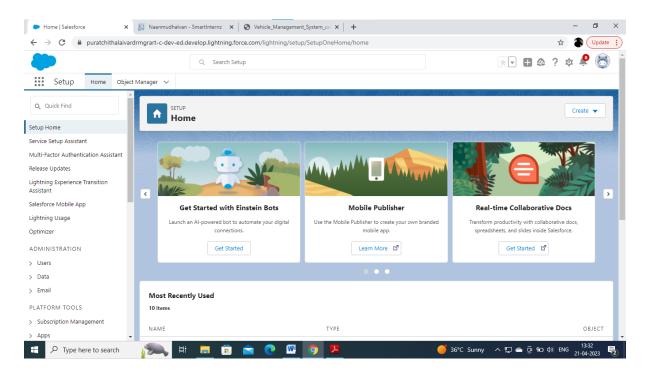


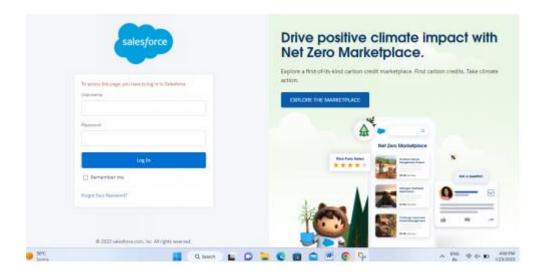
Account Activation

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, as







Activity 2:

To Create an object:

Creation of Objects for Vehicle Management, For this Vehicle Management we need to

create 2 objects i.eVehicles,Driver.

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.

• Creation of Vehicle Object

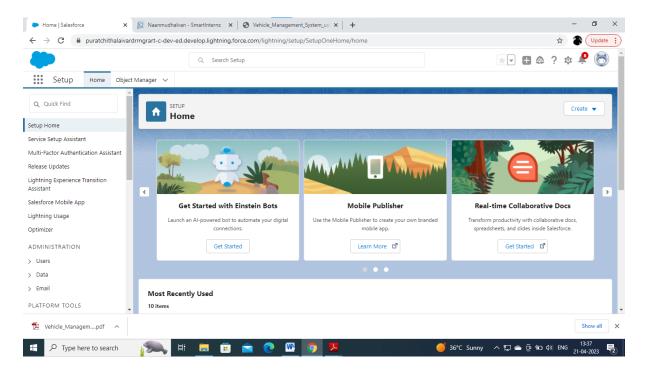
On the Custom Object Definition page, create the object as follows:

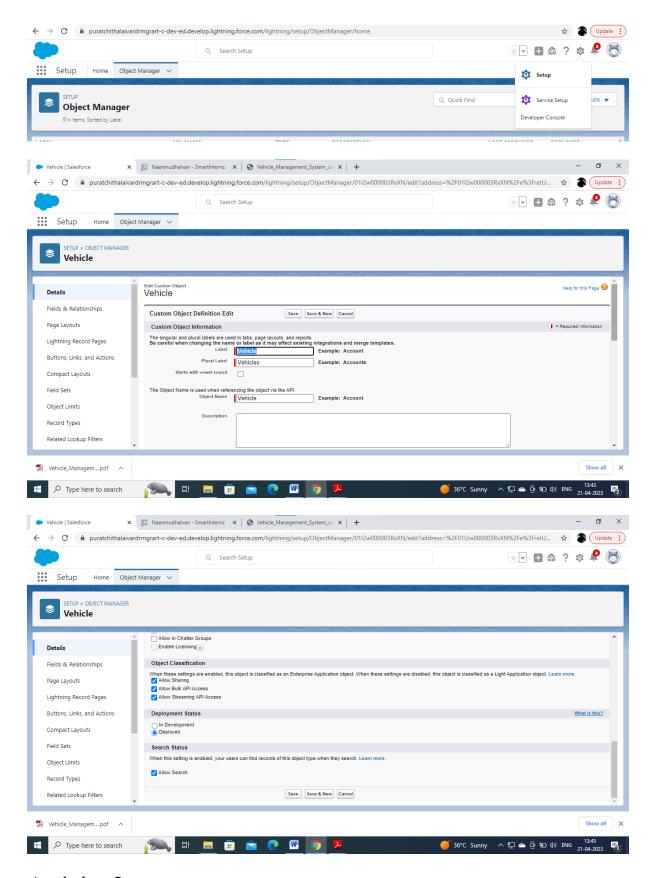
• Label: Vehicle

- 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.





Activity 3:

To Create a driver object continue the same steps Which is followed for the above object.

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Activity-4:

Creation of fields:

Fields in Vehicles objects follow below data types:

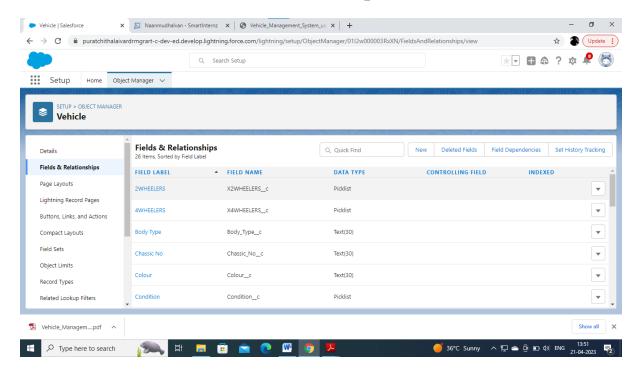
S NO.	Field Names	Data Types
1.	Customer Name	Text
2	Customer Mobile No	Number
3	Vehicle Type i)2 wheeler ii)4 wheeler	Picklist
4.	2WHEELERS i) HERO ii)HONDA iii)BAJAJ iv)ROYAL ENFIELD v)TVS vi)KINETIC vii)OLA viii)JAWA ix)SD x)BATTERY	Picklist
5	4WHEELERS i) RENAULT ii)SKODA iii) HONDA iv)HYUNDAI v)SUZUKI	Picklist

	vi)MAHINDRA vii)VOLKSWAGEN viii)BENZ ix)AUDI x)VOLVO	
6.	Vehicle Name	Text
7.	Vehicle No	Text
8.	Chassic No	Text
9.	Colour	Text
10.	Body Type	Text
11.	Vehicle Includes i)Fire Extenuation ii)First Aid Kit iii)Multi Charger kit iv)Stepney v)Stereo vi)Tool Kit vii)Tracking Device viii)Tyre Jack	Multi Picklist
12.	Condition i)Good ii)Medium iii)Least	Picklist
13	Mileage	Text
14	Seats	Number
15	Start Date	Date/Time
16	End Date	Date/Time
17	Opportunity	Lookup(opportunities)

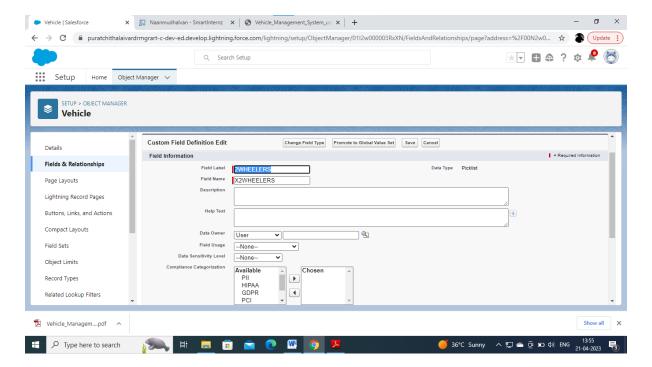
Fields in Driver objects follow below data types:

S No	Field	Data Type
1	Driver Name	Text
2	Licence No	Text
3	Mobile No	Number
4	Fair Per Hour	Text
5	Vehicle	Lookup(Vehicle)

Now click on "Fields & Relationships" → New



Fill the field label name \rightarrow Next \rightarrow Next \rightarrow Save.



S NO. Field Names Data Types

- 1. Customer Name Text
- 2 Customer Mobile No Number

3 Vehicle Type i)2 wheeler ii)4 wheeler **Picklist** 4. **2WHEELERS** i) HERO ii)HONDA iii)BAJAJ iv)ROYAL ENFIELD v)TVS vi)KINETIC vii)OLA viii)JAWA ix)SD x)BATTERY **Picklist** 5 4WHEELERS i) RENAULT ii)SKODA

iii) HONDA

iv)HYUNDAI

v)SUZUKI

Picklist

- vi)MAHINDRA
- vii)VOLKSWAGEN
- viii)BENZ
- ix)AUDI
- x)VOLVO
- 6. Vehicle Name Text
- 7. Vehicle No Text
- 8. Chassic No Text
- 9. Colour Text
- 10. Body Type Text
- 11. Vehicle Includes
- i)Fire Extenuation
- ii)First Aid Kit
- iii) Multi Charger kit
- iv)Stepney
- v)Stereo
- vi)Tool Kit
- vii)Tracking Device

viii)Tyre Jack

Multi Picklist

12. Condition

i)Good

ii)Medium

iii)Least

Picklist

13 Mileage Text

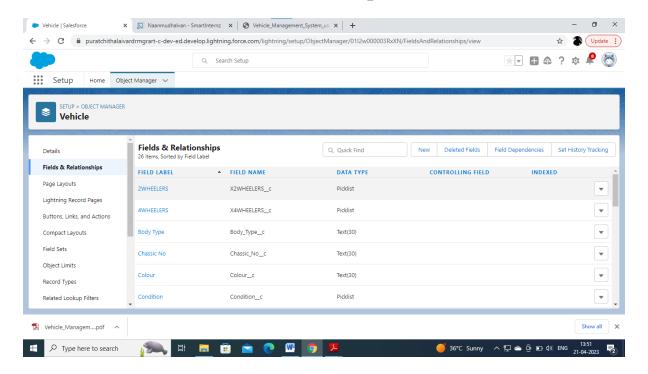
14 Seats Number

15 Start Date Date/Time

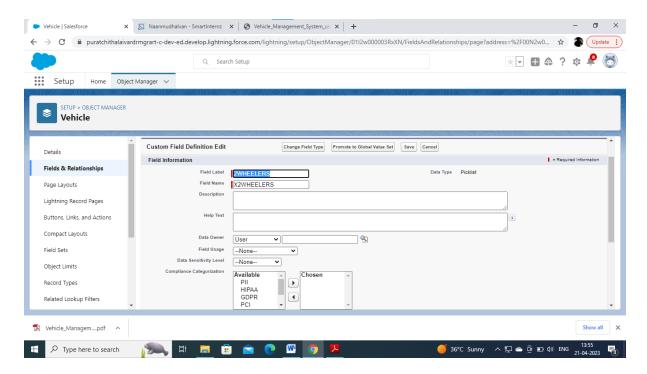
16 End Date Date/Time

17 Opportunity Lookup(opportunities)

Now click on "Fields & Relationships" → New



Fill the field label name \rightarrow Next \rightarrow Next \rightarrow Save



Activity-5:

Fields in Driver objects follow below data types:

- S No Field Data Type
- 1 Driver Name Text
- 2 Licence No Text
- 3 Mobile No Number
- 4 Fair Per Hour Text
- 5 Vehicle Lookup(Vehicle)

Now click on "Fields & Relationships" → New

Fill the field label name \rightarrow Next \rightarrow Next \rightarrow Save.

Activity-3:

Fields In Driver 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 4

wheelers.

The below steps will assist you in creating Field Dependencies.

- Click on the gear icon and then select Setup.
- Click on the object manager tab just beside the home tab.
- After the above steps, Select Vehicles Object
- Now Select Fields and relationships from setup menu of the vehicle object.
- Click Field Dependencies.
- Click New.
- Select Vehicle Type as the Controlling Field and select 2wheelers as the Dependent

Field.

- Click Continue.
- Select the appropriate 2 wheelers Brands in each column by double-clicking them.
- 2WHEELERS :i) HERO

- ii)HONDA
- iii)BAJAJ
- iv)ROYAL ENFIELD
- v)TVS
- vi)KINETIC
- vii)OLA
- viii)JAWA
- ix)SD
- x)BATTERY
- Click Include Values.
- Click Preview, then test the dependency by selecting different Vehicle Type and

viewing the different Vehicles available for Vehicle Type.

- Click Close to close the preview window.
- Click Save.

Follow same steps for 4wheelers also

- Vehicle Type as the Controlling Field and select 4wheelers as the Dependent Field.
- Click Continue.
- Select the appropriate 4wheelers Brands in each column by double-clicking them.

- 4WHEELERS : i) RENAULT
- ii)SKODA
- iii) HONDA
- iv)HYUNDAI
- v)SUZUKI
- vi)MAHINDRA
- vii)VOLKSWAGEN
- viii)BENZ
- ix)AUDI
- x)VOLVO
- Click Include Values.
- Click Preview, then test the dependency by selecting different Vehicle Type and

viewing the different Vehicles available for Vehicle Type.

- Click Close to close the preview window.
- Click Save.

Now click on "Fields & Relationships" → New

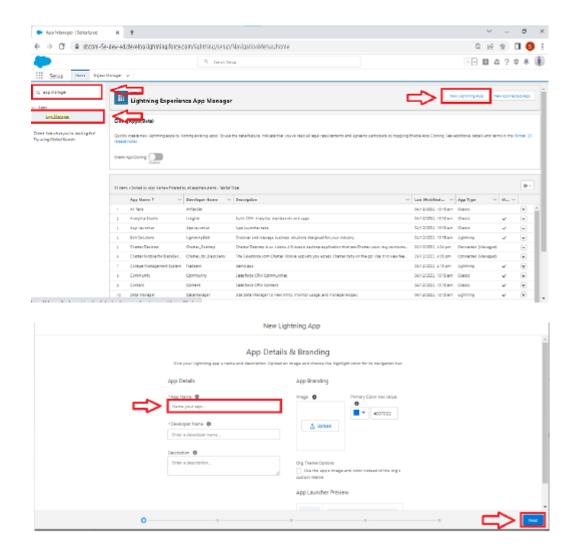
Fill the field label name \rightarrow Next \rightarrow Next \rightarrow Save.

Milestone-4:Lightning App

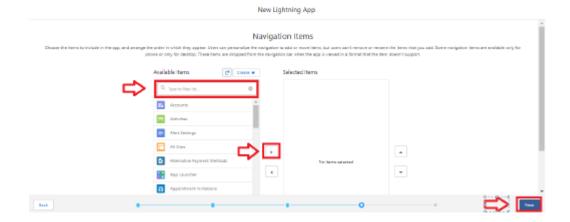
Apps in Salesforce are a group of tabs that help the application function by working together

as a unit. It has a name, a logo, and a particular set of tabs. The simplest app usually has just

two tabs.

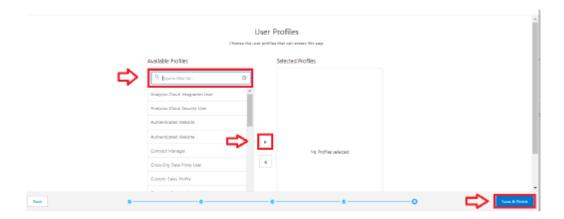


Select the items from the search bar and move it using the arrow button \rightarrow Next.



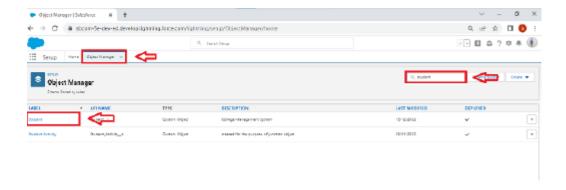
To Add User Profiles:

Search profiles in search bar \rightarrow click on the arrow button \rightarrow save & finish.



To create fields in an object:

Go to setup \rightarrow click on Object Manager \rightarrow type object name in search bar \rightarrow click on the object.



To creater

Activity-6:

Create the Vehicle Management Construction app

- From Setup, enter App Manager in the Quick Find and select App Manager.
- Click New Lightning App. Enter Vehicle Management as the App Name, then click

Next

- Under App Options, leave the default selections and click Next.
- Under Utility Items, leave as is and click Next.
- From Available Items, select Accounts, Contacts, Opportunities, Vehicle,

Driver, Reports, and Dashboards and move them to Selected Items. Click

Next.

• From Available Profiles, select System Administrator and move it to Selected

Profiles. Click Save & Finish.

• To verify your changes, click the App Launcher, type Vehicle Management and select

the Vehicle Management app.

Note:

- 1. App Launcher-Displays available apps.
- 2. App Name-Displays the current selected app.
- 3. Navigation menu-Displays the tabs available inside the app.

To Add Navigation Items:

Select the items from the search bar and move it using the arrow button \rightarrow Next.

To Add User Profiles:

Search profiles in search bar \rightarrow click on the arrow button \rightarrow save & finish.

To create fields in an object:

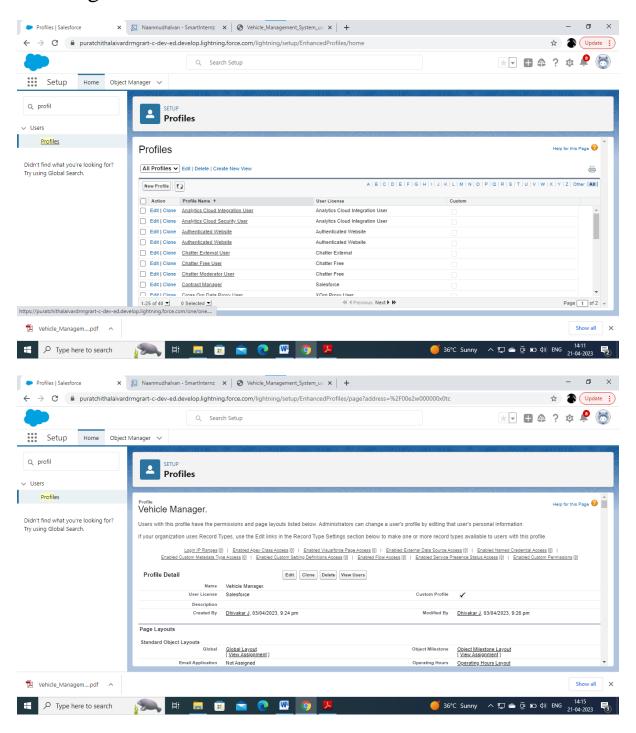
Go to setup \rightarrow click on Object Manager \rightarrow type object name in search bar \rightarrow click on the object.

Activity 7:

Creating a Profiles: Now create a Vehicle Manager profile and set its object

permissions.

Creating a Profiles:



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

- From Setup enter Profiles in the Quick Find box, and select Profiles.
- From the list of profiles, find Standard User.
- Click Clone.
- For Profile Name, enter Vehicle Manager.
- Click Save.
- While still on the Vehicle Manager profile page, then click Edit.
- Scroll down to Custom Object Permissions and give access for

Create,Read,Edit,Delete,View all and modify all for Vehicle object and Drivers

object.

To create a new profile:

Go to setup \rightarrow type profiles in quick find box \rightarrow click on profiles \rightarrow clone the desired profile

(standard user is preferable) \rightarrow enter profile name \rightarrow save

Enter a Profile Name

Click on the new created profile

While still on the profile page, then click Edit.

Scroll down to Custom Object Permissions and Give view all access permissions and assign

to the parent profile

Similarly Create operator profile ,Clone Salesforce Platform user and give access only for

Vehicles object.

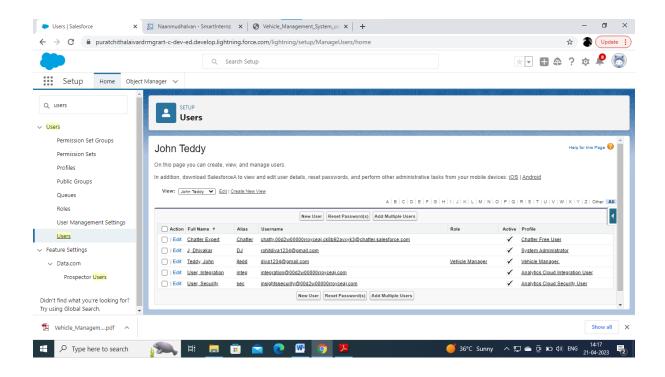
Setup Roles:

- 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.

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.

Activity 8:

Creating a Users:

- 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 Licence As salesforce.
- 6. Select a profile as Vehicle Manager.
- 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.

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

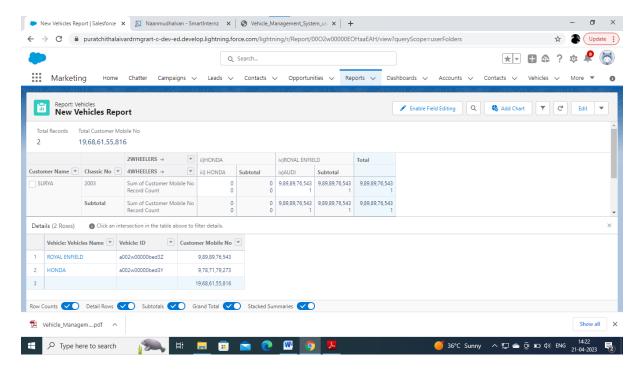
license, profiles) \rightarrow save.

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

profile.

Activity 9:

Reports And Dashboards.



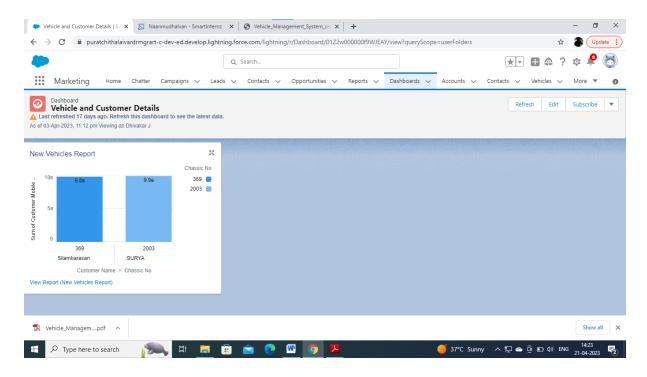
- Go to Reports and click New Report.
- Select the Accounts, Contacts and Vehicle report type and click Start Report.
- To begin filtering, click Filters.
- Click the Show Me standard filter and select My Contacts. Click Apply.
- Click on add columns add Vehicle: Vehicle name, Vehicle: Customer id,

Vehicle:Customer name, Vehicle:Customer Number, Vehicle:Chassis Number.

- Click Save.
- Save your report as Vehicle and Customer Details and accept the auto-generated unique name.

Activity 10:

Dashboard:



- 1. Click the Dashboards tab.
- 2. Click New Dashboard.
- 3. Name the dashboard Vehicle and Customer Details and click Create.
- 4. Click +Component.
- 5. Select the Supplies report 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 \rightarrow click on the reports tab

Click New Report

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.

3 Trailhead Profile Public URL

Team Lead(M.Silambarasan) - https://trailblazer.me/id/ssimbu4

Team Member(J.Dhivakar) 1 - https://trailblazer.me/id/rdiva17

Team Member (M.Deena)2 <u>- https://trailblazer.me/id/ddeena2</u>

Team Member(R.Sethupathi) 3https://trailblazer.me/id/hvicky4

Project Report Template

4 ADVANTAGES & DISADVANTAGE

ADVANTAGES

Vehicle management systems can provide real-time monitoring and alerts for driver behavior, such as speeding or harsh braking, which helps promote safer driving and reduces the risk of accidents. Enhanced maintenance: Vehicle management systems can track vehicle maintenance schedules and provide reminders for routine maintenance tasks, which helps reduce breakdowns and prolong vehicle lifespan.

Improved customer service: With real-time tracking and communication, vehicle management systems can provide accurate information on vehicle location and estimated arrival times, which improves customer service and satisfaction.

Cost savings: Effective vehicle management can help reduce fuel consumption, optimize routes, and improve maintenance scheduling, which can result in significant cost savings for the organization.

DISADVANTAGE

Cost: Implementing a vehicle management system can be expensive, especially for small businesses or organizations with limited budgets.

Complexity: Vehicle management systems can be complex and require a significant investment of time and resources to set up and maintain.

Dependence on technology: Vehicle management systems rely on technology such as GPS and telematics, which can be vulnerable to system failures or hacking. Privacy concerns: Vehicle management systems collect data on driver behavior and vehicle location, which can raise privacy concerns for employees and customers.

Resistance to change: Implementing a vehicle management system may require changes to existing processes and may face resistance from employees who are used to the old ways of doing things.

5 APPLICATIONS

Vehicle tracking: Vehicle management applications use GPS technology to track the location of vehicles in real-time, which helps organizations monitor the movement of their fleet and plan routes effectively.

Maintenance management: Vehicle management applications can track vehicle maintenance schedules, including oil changes, tire rotations, and other routine maintenance tasks, and provide reminders for upcoming maintenance.

Fuel management: Vehicle management applications can monitor fuel consumption and provide insights on how to optimize fuel efficiency, which helps reduce fuel costs.

Driver management: Vehicle management applications can track driver behavior, including speeding, harsh braking, and other risky behaviors, and provide alerts to fleet managers. This helps improve driver safety and reduce accidents.

7 CONCLUSION

Salesforce is your customer success platform, designed to help you sell, service, market,

analyze, and connect with your customers.

Salesforce has everything you need to run your business from anywhere. Using standard

products and features, you can manage relationships with prospects and customers,

collaborate and engage with employees and partners, and store your data securely in the cloud.

So what does that really mean? Well, before Salesforce, your contacts, emails, follow-up tasks, and prospective deals might have been organized something like this:

8 FUTURE SCOPE

Autonomous Vehicles: The development of self-driving vehicles is one of the most significant trends in the automotive industry. Autonomous vehicles can improve vehicle management by reducing the need for human intervention, enhancing safety, and optimizing fuel efficiency.

Electric Vehicles: The push towards sustainable transportation is driving the growth of electric vehicles. EVs have lower emissions and lower operating costs, making them an attractive option for fleet managers and consumers alike. As battery technology continues to improve, EVs are expected to become even more practical and affordable.

Predictive Maintenance: With the help of Internet of Things (IoT) devices and machine learning algorithms, vehicle management systems can predict and prevent maintenance issues before they become major problems. This will help fleet managers optimize their maintenance schedules, reduce downtime, and improve overall vehicle performance.

Connected Vehicles: The integration of vehicles with the Internet of Things (IoT) and other connected technologies will enable vehicle management systems to gather real-time data on vehicle performance, driver behavior, and traffic conditions. This data can be used to optimize routes, reduce congestion, and improve safety.