Project Report

Vehicle Management System using Salesforce

1 INTRODUCTION

Fleet management is the system which uses application or technology to track and manage different kinds of vehicles such as cars, cargo logistic assignment, luxury buses, ambulance assignment, ships etc.

The fleet management system also keeps records of vehicles such as purchase, rental or lease information, driver records, fuel information, GPS records and so on. The system uses fleet management software which keeps all the reports and sends email as per stored email database.

There are two main types of GPS tracking viz. active and passive. Active GPS tracking uses wireless network to transmit real time location and other information of fleet. Passive GPS tracking uses tracking device which stores the tracking data. This data can be downloaded and viewed when vehicle returns from the trip.

1.1 Overview

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 is 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.

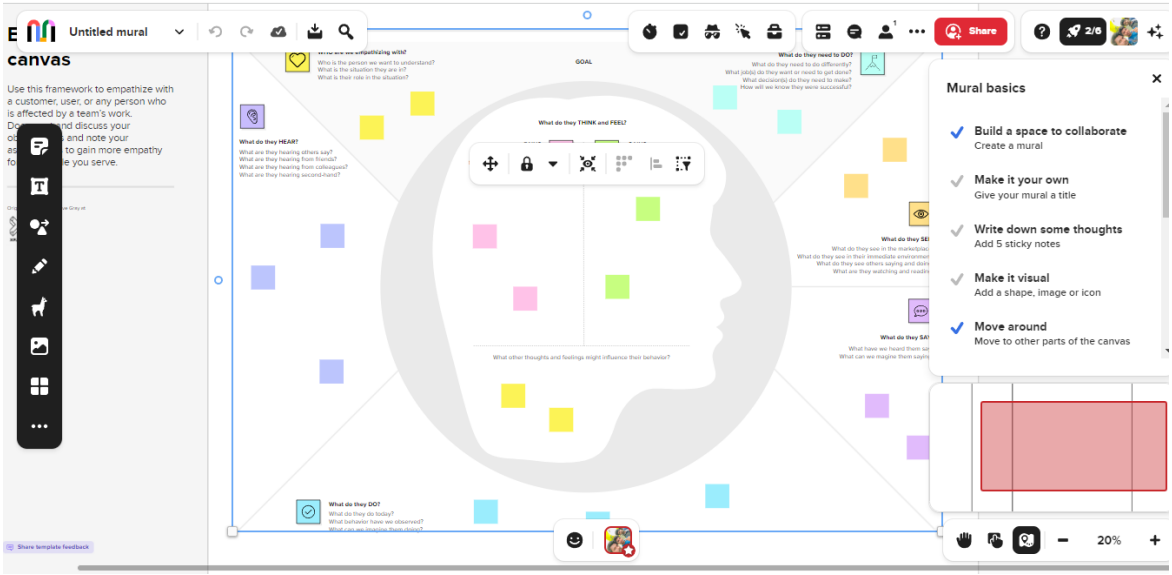
1.2 Purpose

i) Create and manage vehicle records to optimize the usage of your trucks and trailers that carry inventories to stores.

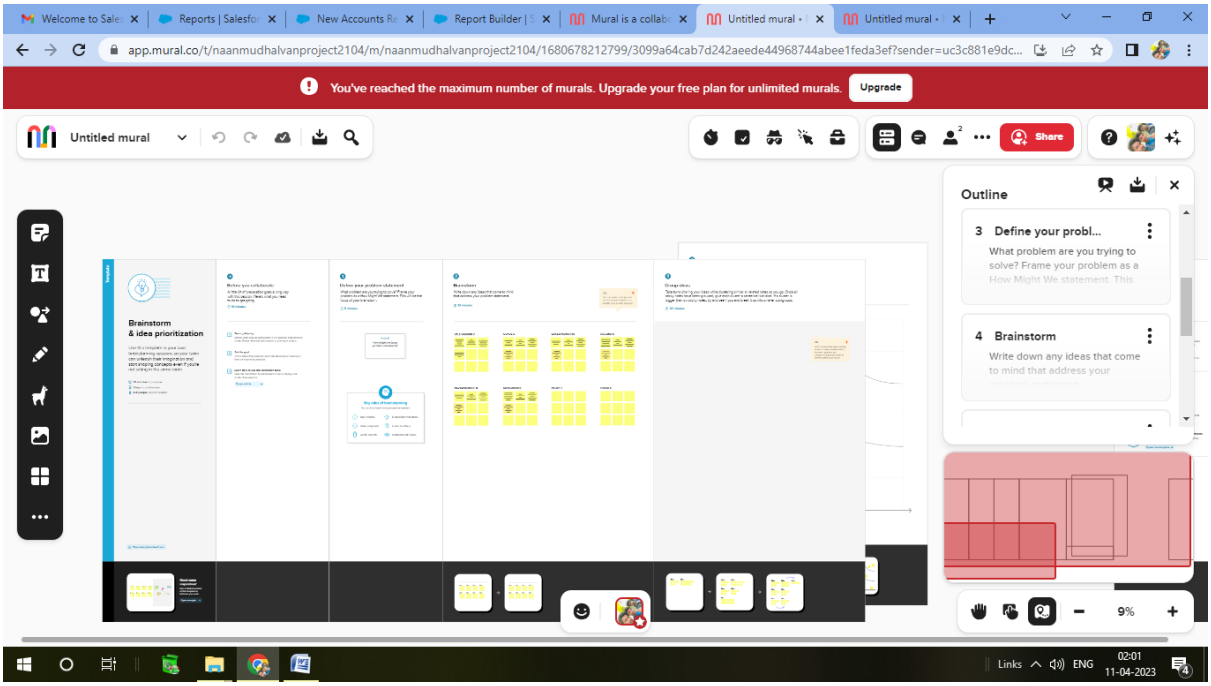
ii) To track the vehicles that carry goods out of a warehouse, assign them to that warehouse.

2 Problem Definition & Design Thinking

2.1 EmpathyMap



2.2 Ideation & Brainstorming Map



3 RESULT

3.1 Data Model:

Object name	Fields in the Object

Object – 1 **Vehicle**	

Field label	**Data type**
Customer Name	**Text**
Customer Mobile No	**Number**
Vehicle Type **i) 2-wheeler** **ii) 4-wheeler**	**Picklist**
2WHEELERS **i) HERO** **ii) HONDA** **iii) BAJAJ** **iv) ROYAL ENFIELD** **v) TVS** **vi) KINETIC** **vii) OLA** **viii) JAWA** **ix) SD** **x) BATTERY**	**Picklist**
4 WHEELERS **i) RENAULT** **ii) SKODA** **iii) HONDA** **iv) HYUNDAI** **v) SUZUKI** **vi) MAHINDRA** **vii) OLKSWAGEN** **viii) BENZ** **ix) AUDI** **x) VOLVO**	**Picklist**
Vehicle Name	**Text**
Vehicle No	**Text**
Chassic No	**Text**
Colour	**Text**

	Body Type	**Text**
	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**
	Condition **i) Good** **ii)Medium** **ii) Least**	**Picklist**
	Mileage	**Text**
	Seats	**Number**
	Start Date	**Date/Time**
	End Date	**Date/Time**
	Opportunity	**Lookup(opportunities)**

Object - 2

Driver

Field label	**Data type**
Driver Name	**Text**
Licence No	**Text**
Mobile No	**Number**
Fair Per Hour	**Text**
Vehicle	**Lookup(Vehicle)**

3.2 Activity & Screenshot

Milestone 1:Creation Salesforce Org:

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

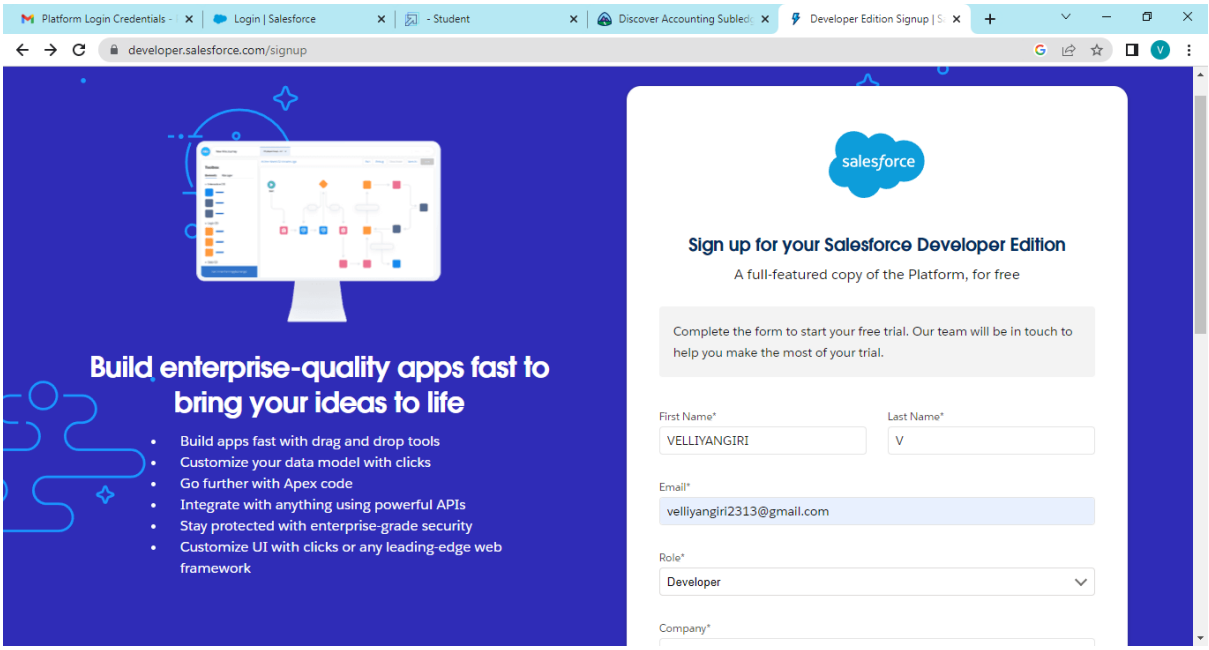
d. County : India

e. Postal Code : pin code

f. Username : should be a combination of your name and company

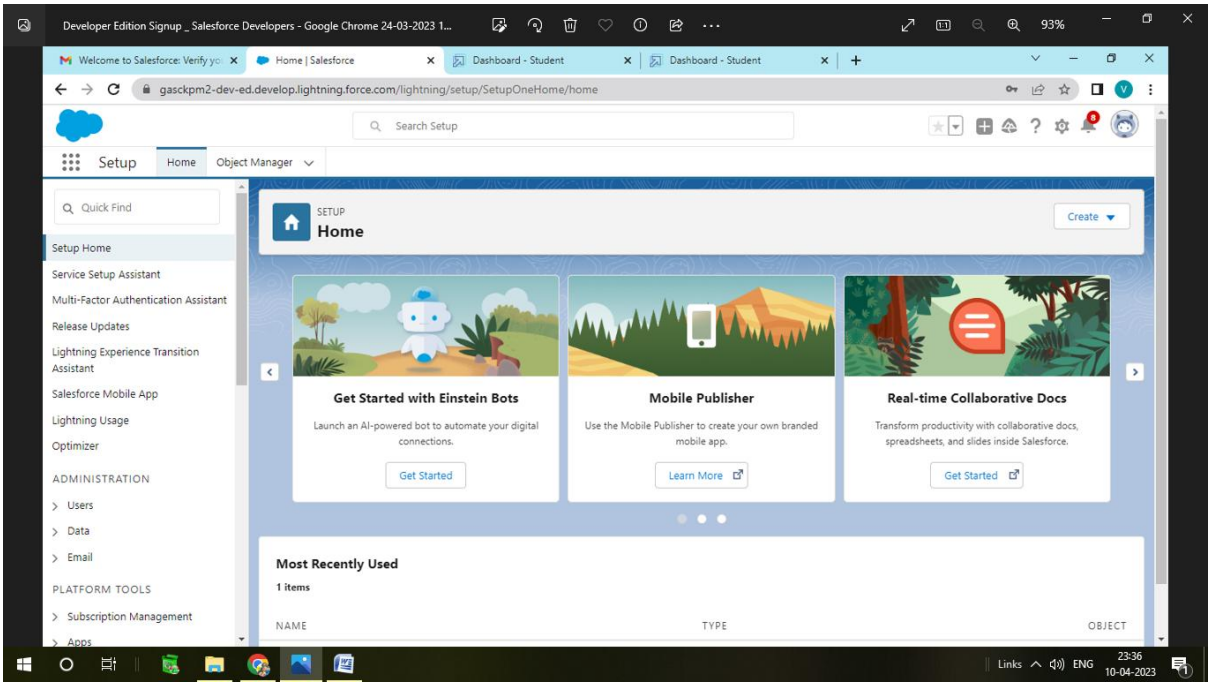
This need not be an actual email id, you can give anything in the format :

username@organization.com



ACCOUNT ACTIVATION

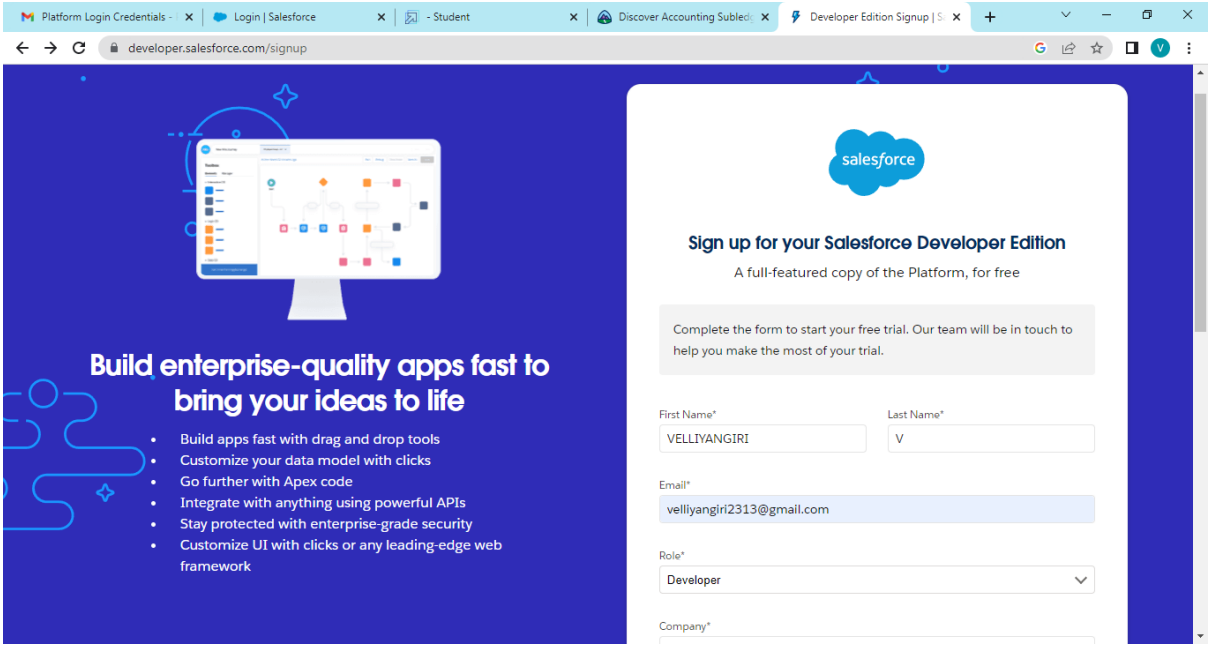
Go to the inbox of the email that you used while siginingup.Click on the verify account to activate your account .The email may take 5- 10 mins,as



Login To Your Salesforce Account

1. **Go to salesforce.com and click on login**
2. **Enter the username and password that you just created.**

3 .After login this is the home page which you will see



Milestone-2:Object

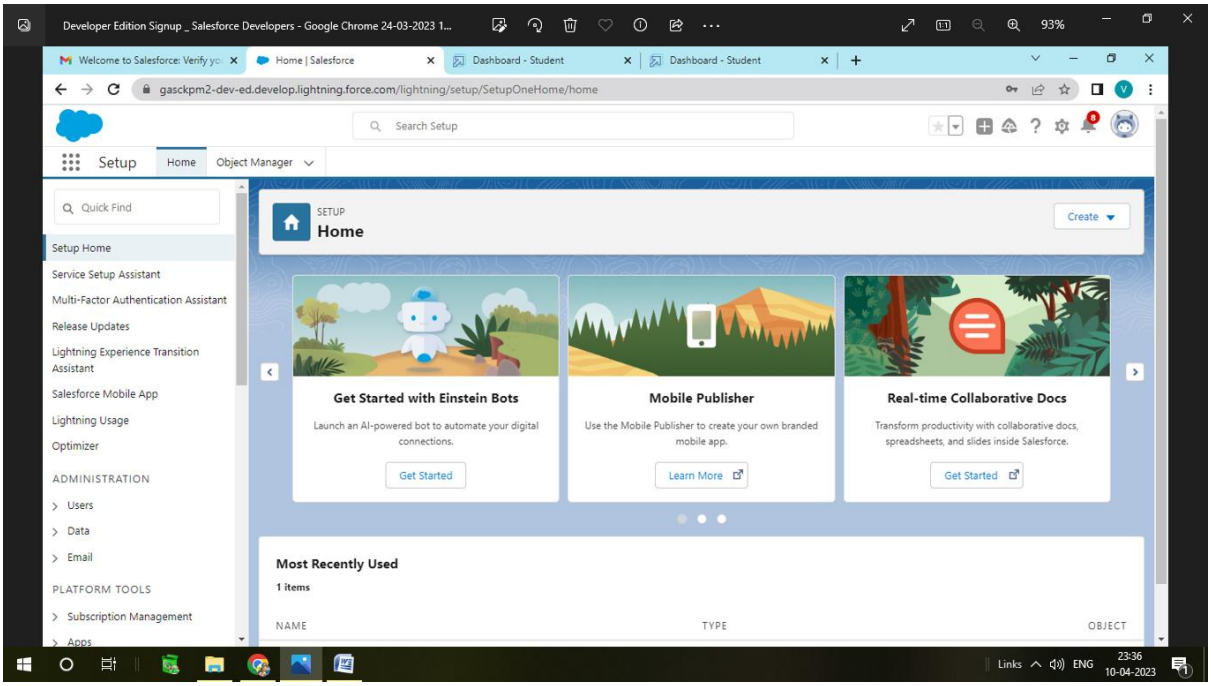
Sales force objects are database tables that permit you to store data that is specific to an organization. Sales force objects are of two types: Standard Objects: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.

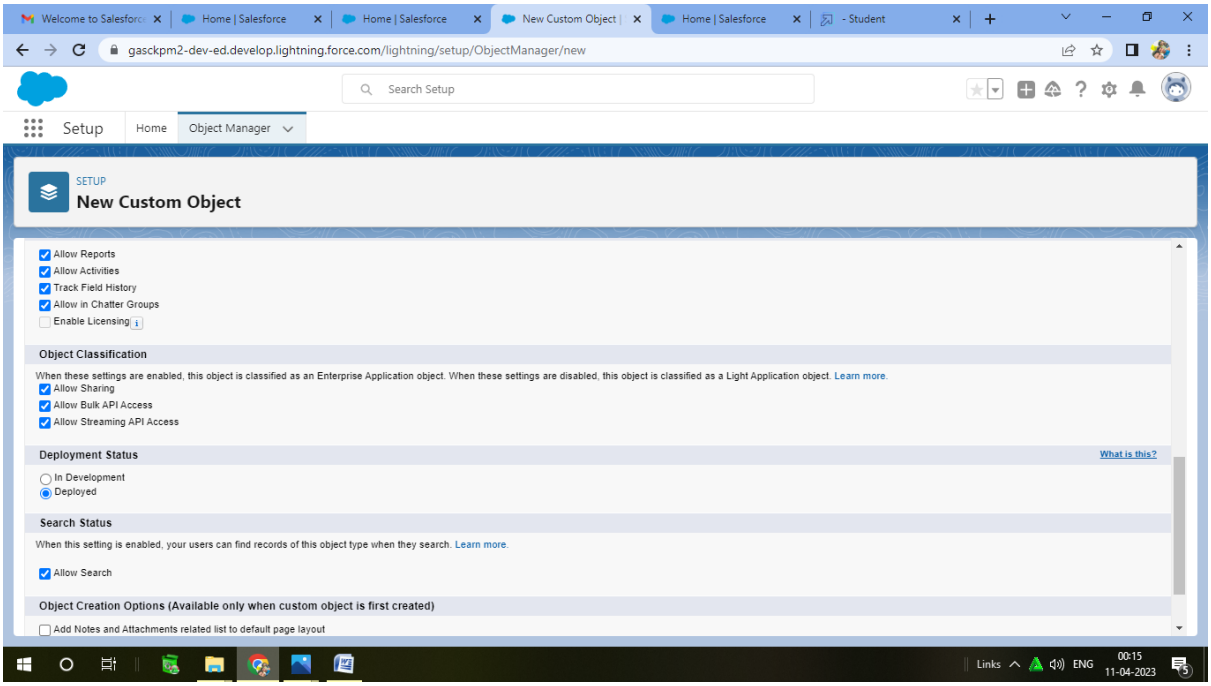
Standard Objects: Account, Contact, Opportunity.
Custom objects: Vehicles, Drivers.

Activity 1:

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 2:

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

- Label: Driver
- Plural Label: Drivers
- 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.

Milestone -3:Fields and Relationship

Activity-1:

Creation of fields:

Fields in Vehicles objects follow below data types:

3.1 Data Model:

Object name	Fields in the Object

Object – 1 **Vehicle**	

Field label	**Data type**
Customer Name	**Text**
Customer Mobile No	**Number**
Vehicle Type **iii) 2-wheeler** **iv) 4-wheeler**	**Picklist**
2WHEELERS **xi) HERO** **xii) HONDA** **xiii) BAJAJ** **xiv) ROYAL ENFIELD** **xv) TVS** **xvi) KINETIC** **xvii) OLA** **xviii) JAWA** **xix) SD** **xx) BATTERY**	**Picklist**
4 WHEELERS **xi) RENAULT** **xii) SKODA** **xiii) HONDA** **xiv) HYUNDAI** **xv) SUZUKI** **xvi) MAHINDRA** **xvii) OLKSWAGEN** **xviii) BENZ** **xix) AUDI** **xx) VOLVO**	**Picklist**
Vehicle Name	**Text**
Vehicle No	**Text**
Chassic No	**Text**
Colour	**Text**

	Body Type	**Text**
	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**
	Condition **iii) Good** **ii)Medium** **iv) Least**	**Picklist**
	Mileage	**Text**
	Seats	**Number**
	Start Date	**Date/Time**
	End Date	**Date/Time**
	Opportunity	**Lookup(opportunities)**

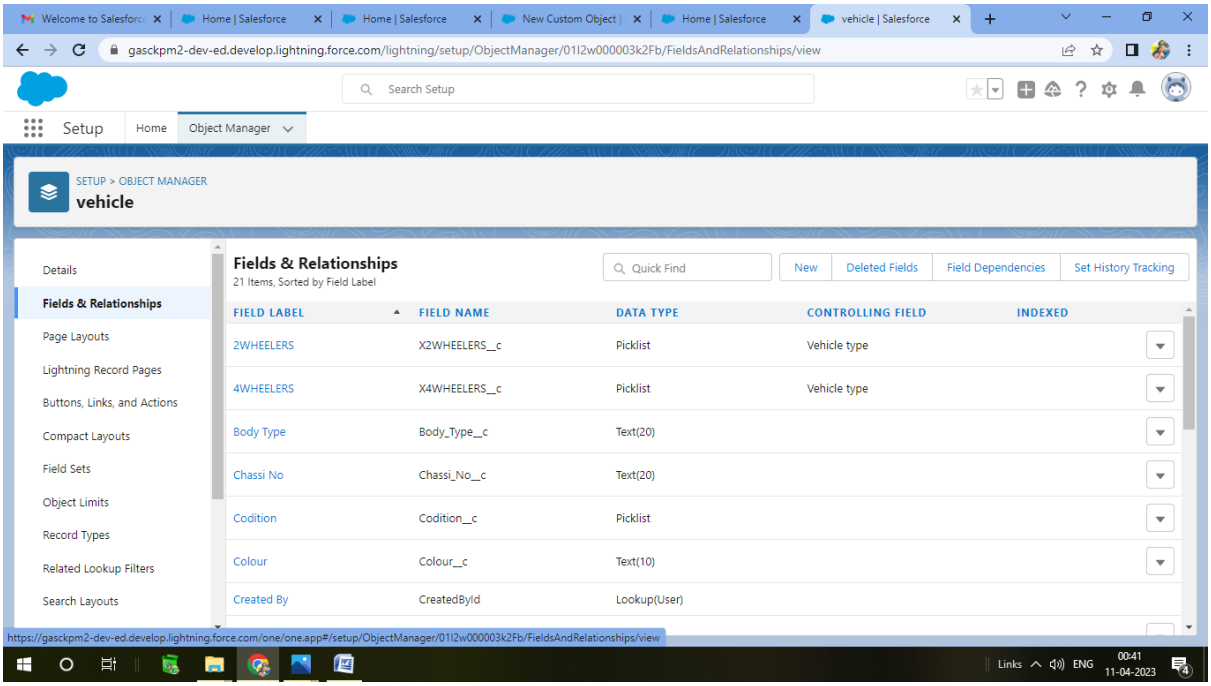
Object - 2

Driver

Field label	**Data type**
Driver Name	**Text**
Licence No	**Text**
Mobile No	**Number**
Fair Per Hour	**Text**
Vehicle	**Lookup(Vehicle)**

Activity-2:
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)

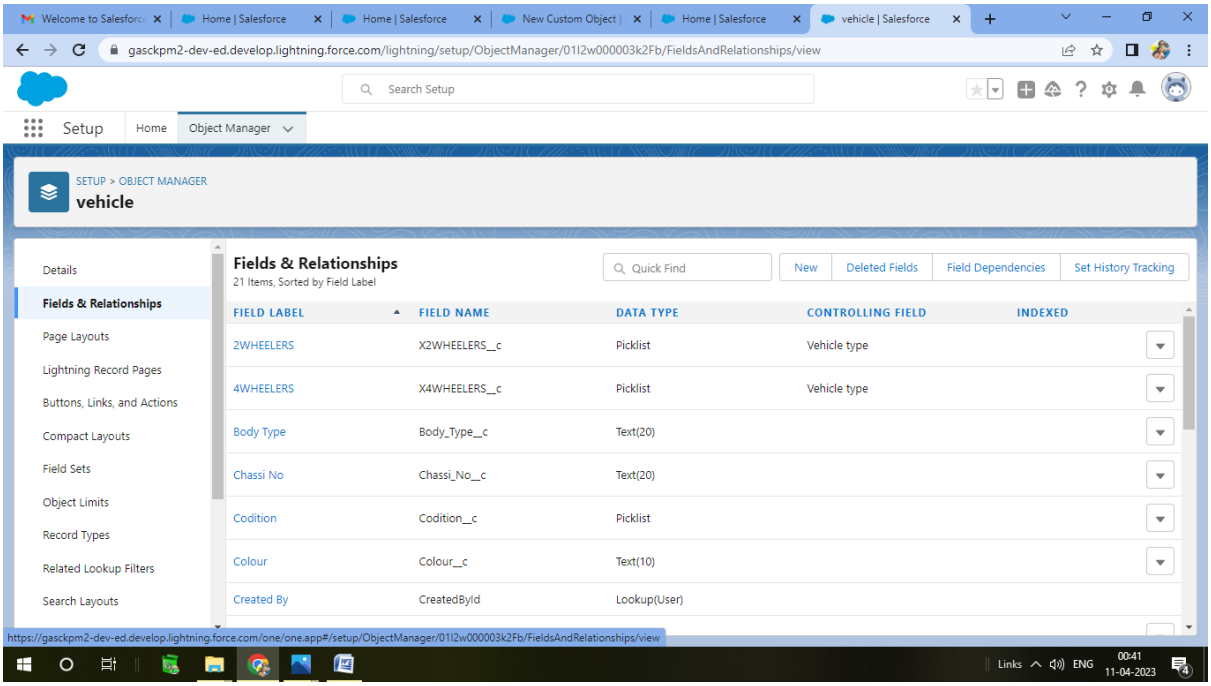


Activity-3:
Fields In Driver Object:

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



Milestone-4:Lightning App

Activity-1:
Create the Vehicle Management Construction 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.

Activity-1:
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.

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● 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.

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● To verify your changes, click the App Launcher, type Vehicle Management and select the Vehicle Management app.

Note:

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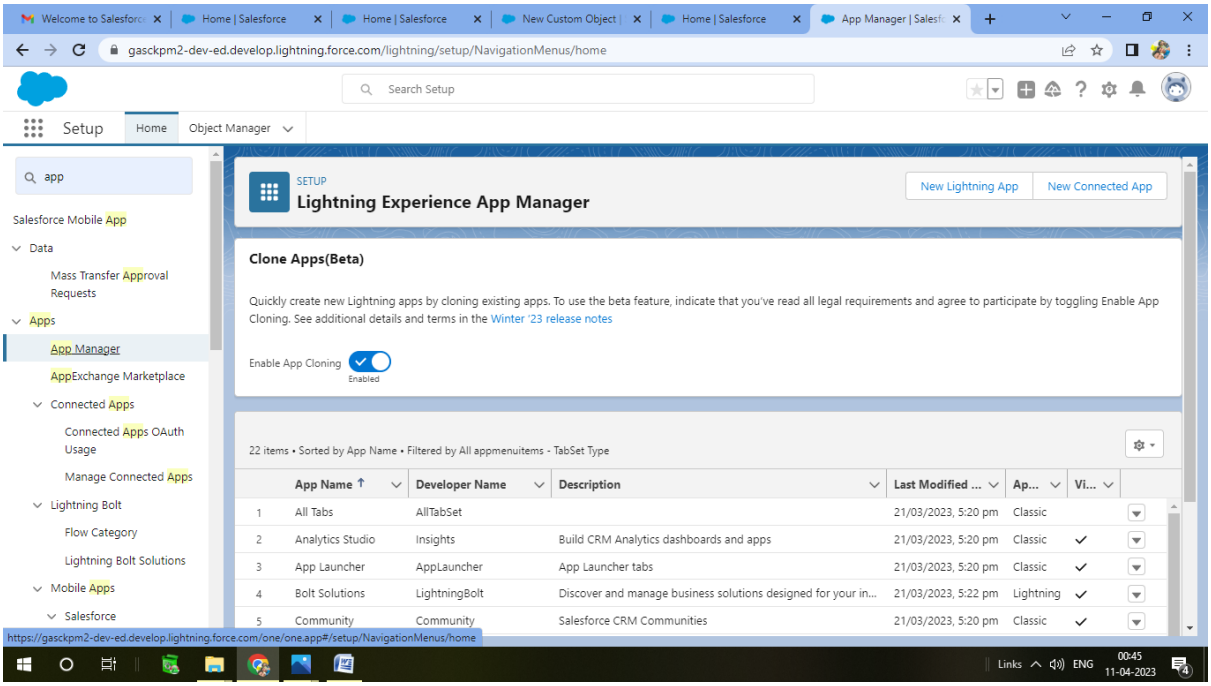
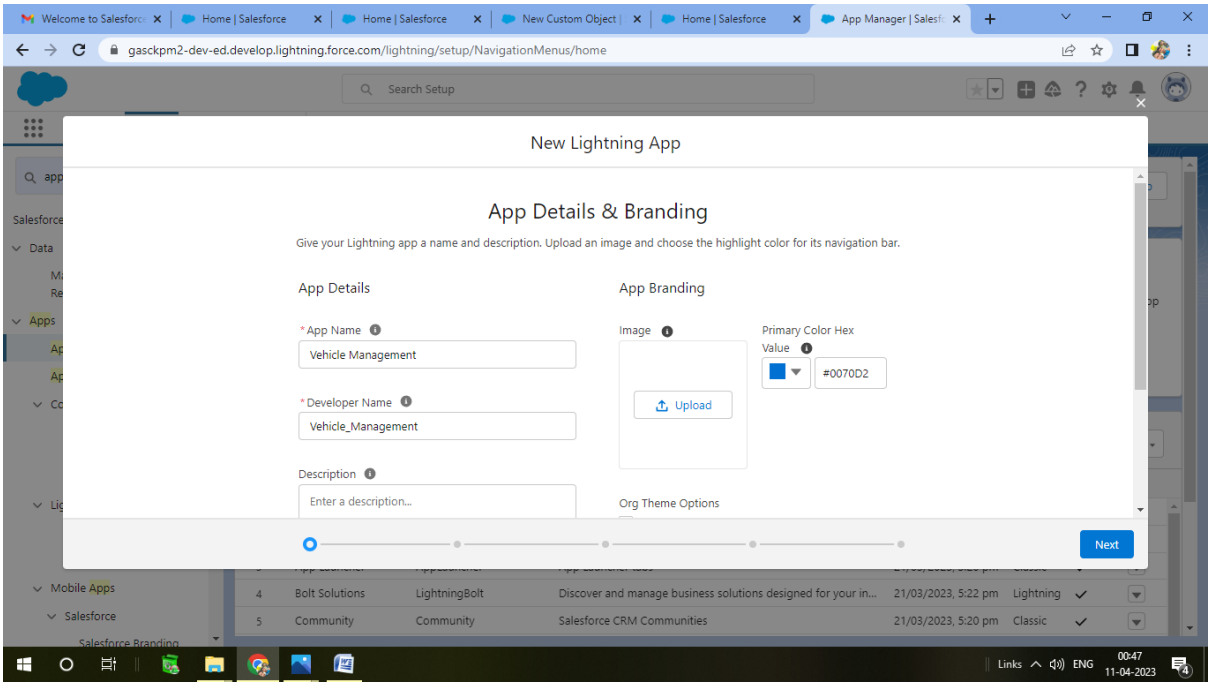
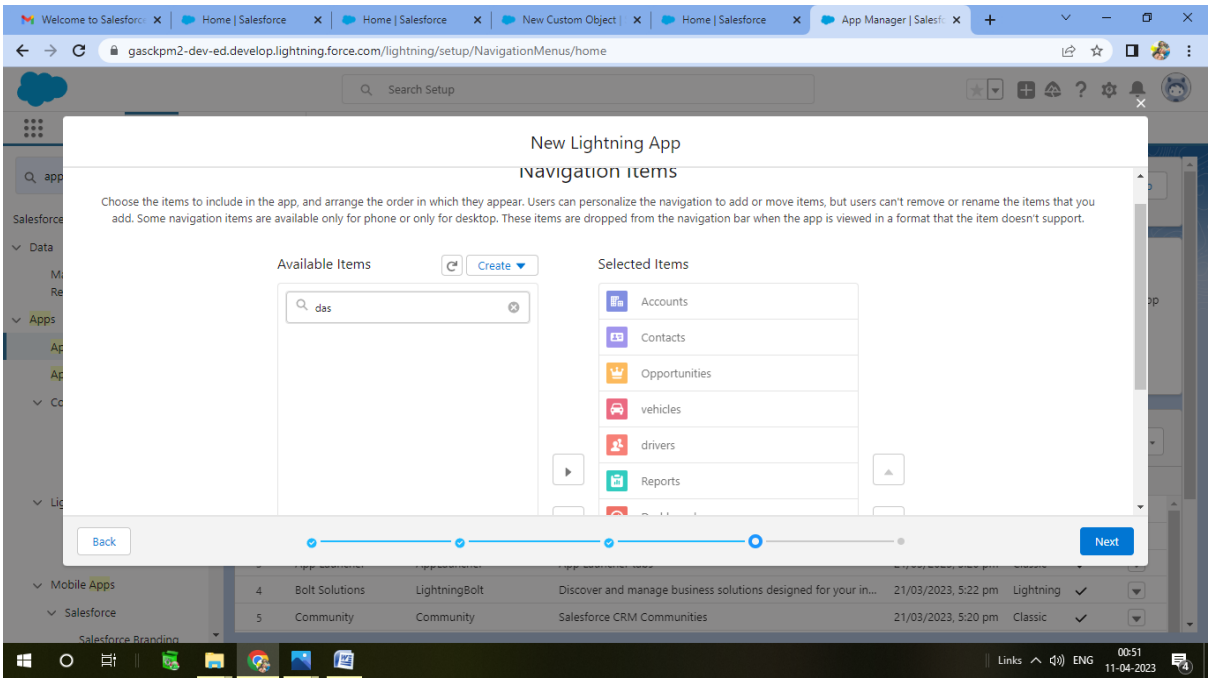




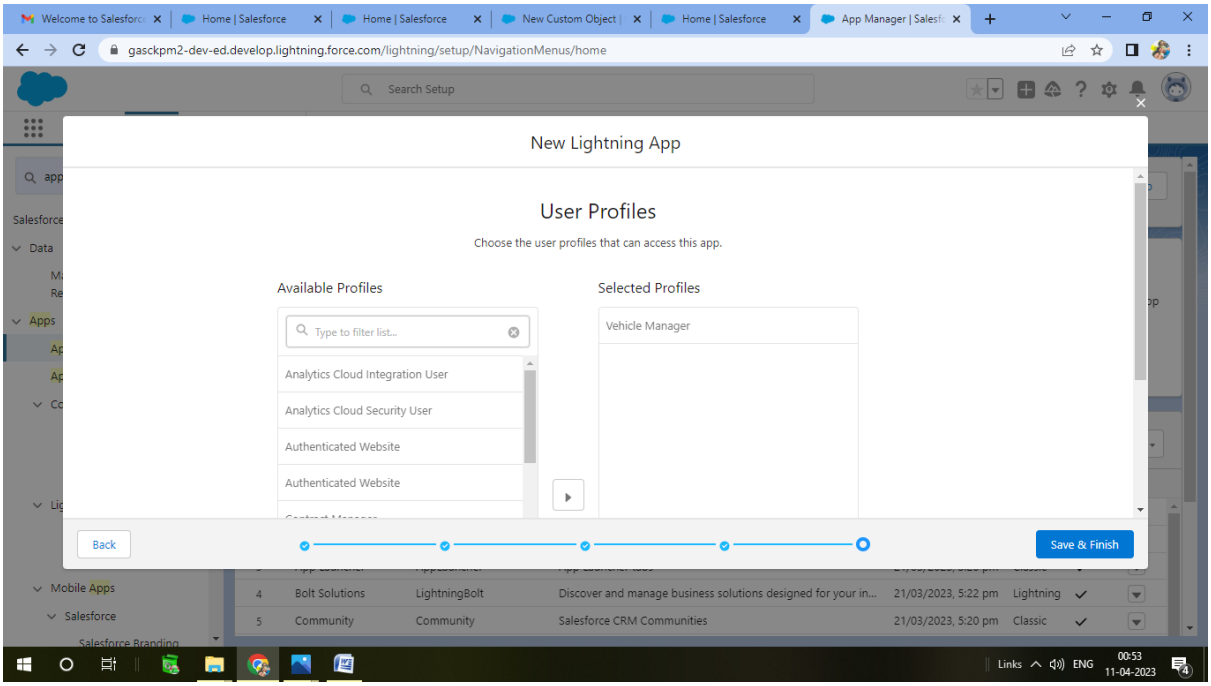
To Add Navigation Items:

Select the items from the search bar and move it using the arrow button - next



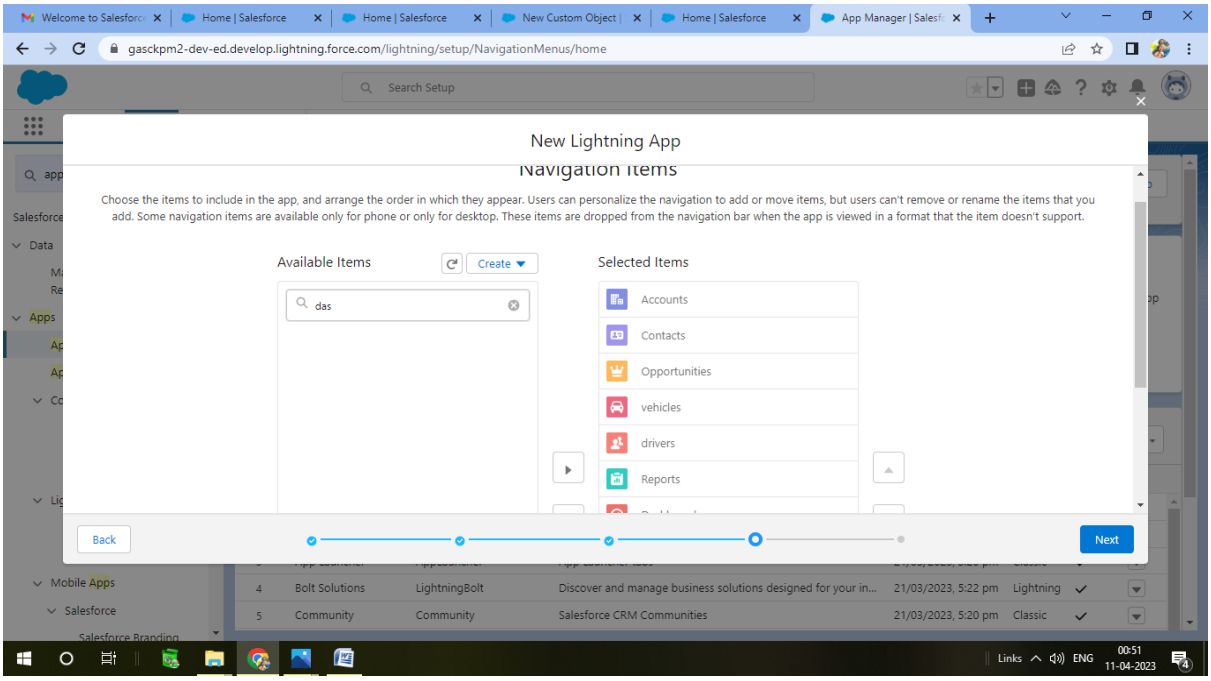
To Add User Profiles:

Search Profiles in Search bar ~~——click~~ on the arrow button ~~——save~~ &finish



To create fields in an object:

Go to setup ⟶ click on Object Manager ⟶ type object name in search bar ⟶ click on the object



Milestone-5: Profile

Activity 1:

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

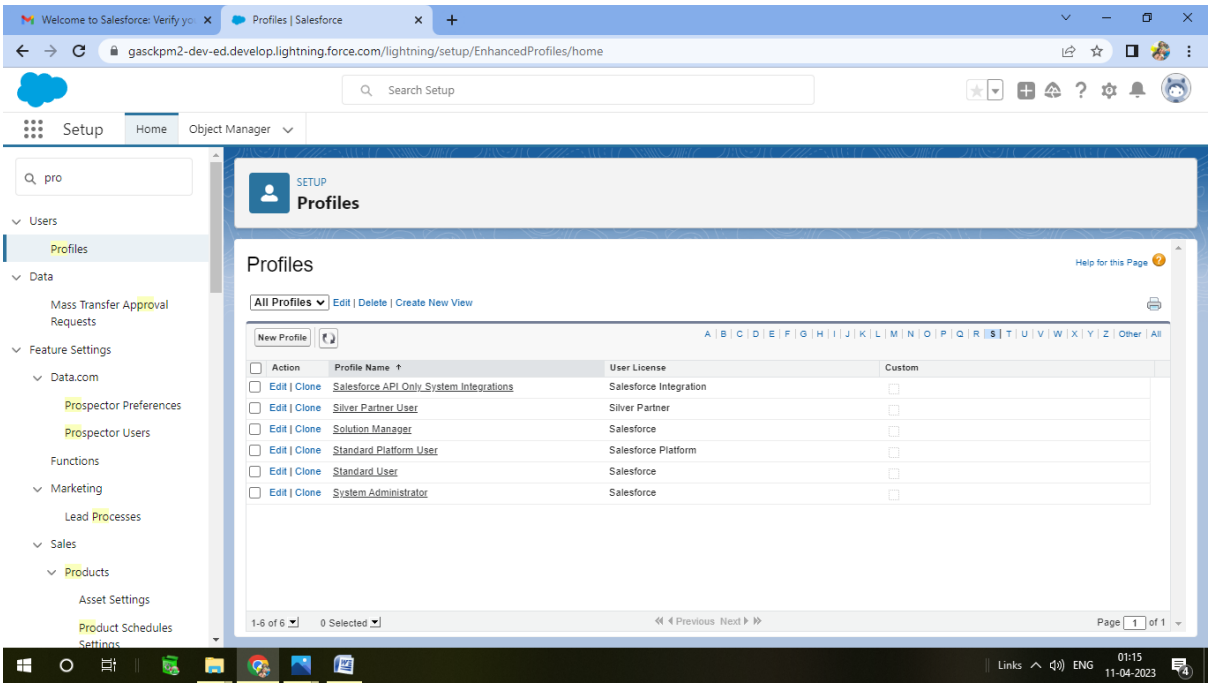
Creating a Profiles:

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

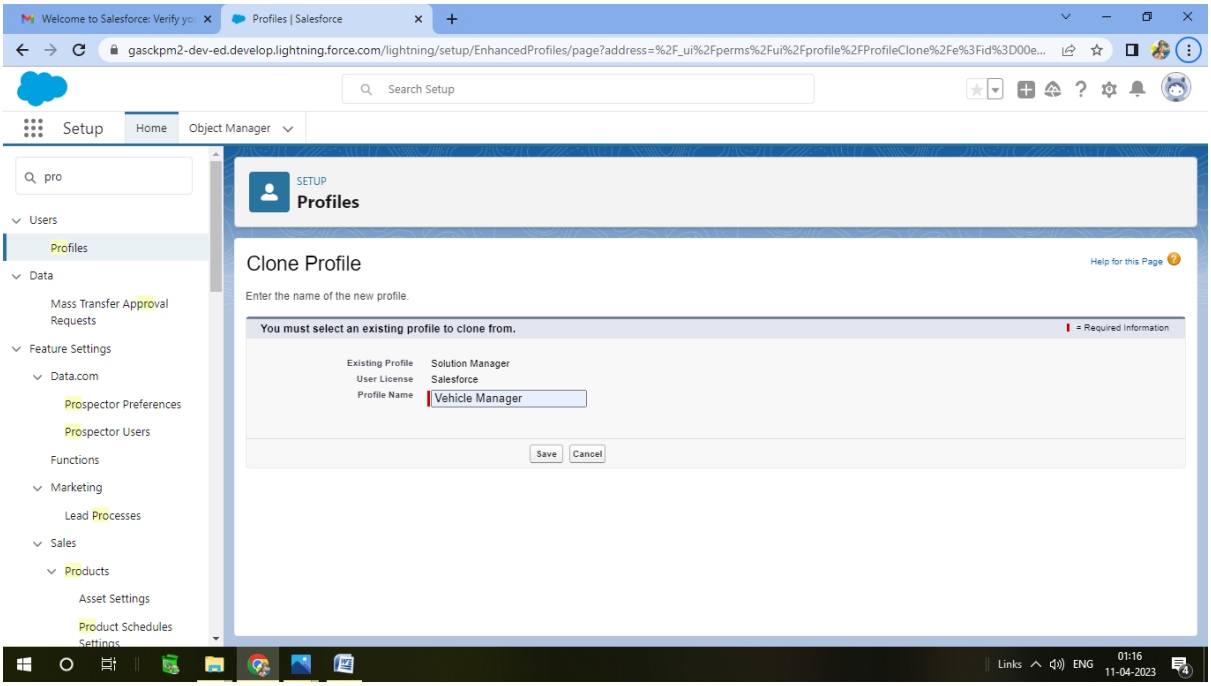
- From Setup enter Profiles in the Quick Find box, and select Profiles.
- From the list of profiles, find Standard User.
- Click Clone.
- For Profile Name, enter Vehicle Manager.
- Click Save.
- While still on the Vehicle Manager profile page, then click Edit.
- Scroll down to Custom Object Permissions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

To create a new profile:

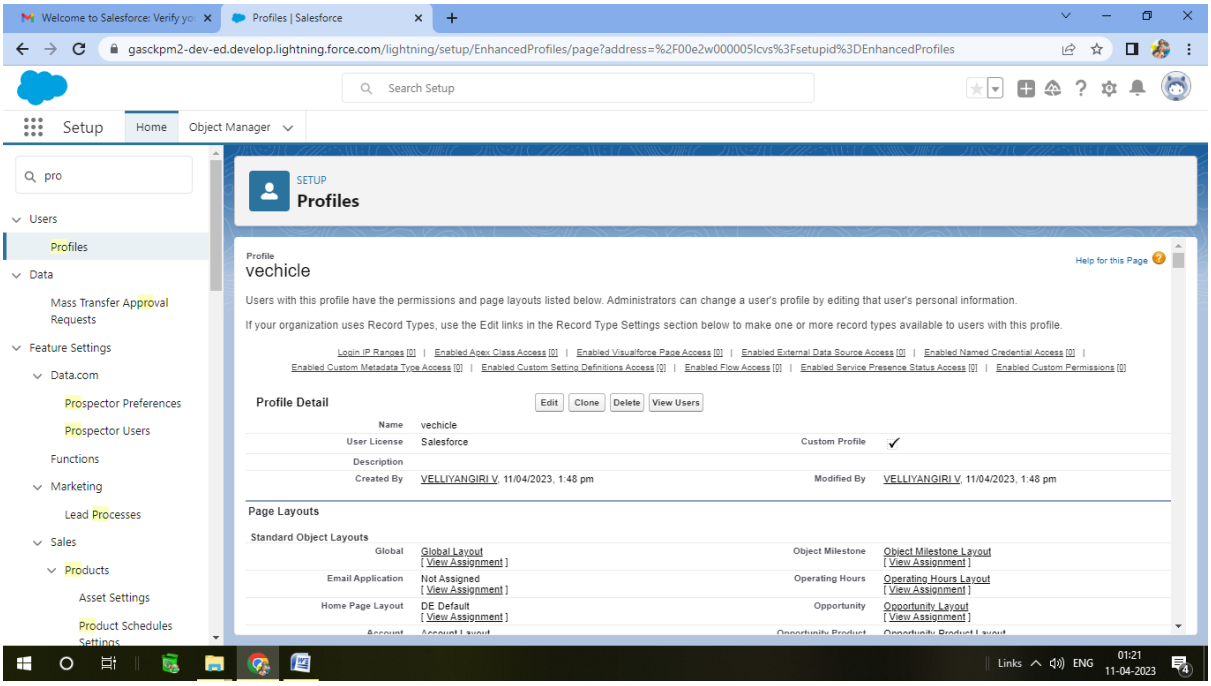
Go to setup → type profiles in quick find box → click on profiles → clone the desired profile (standard user is preferable) → enter profile name → save



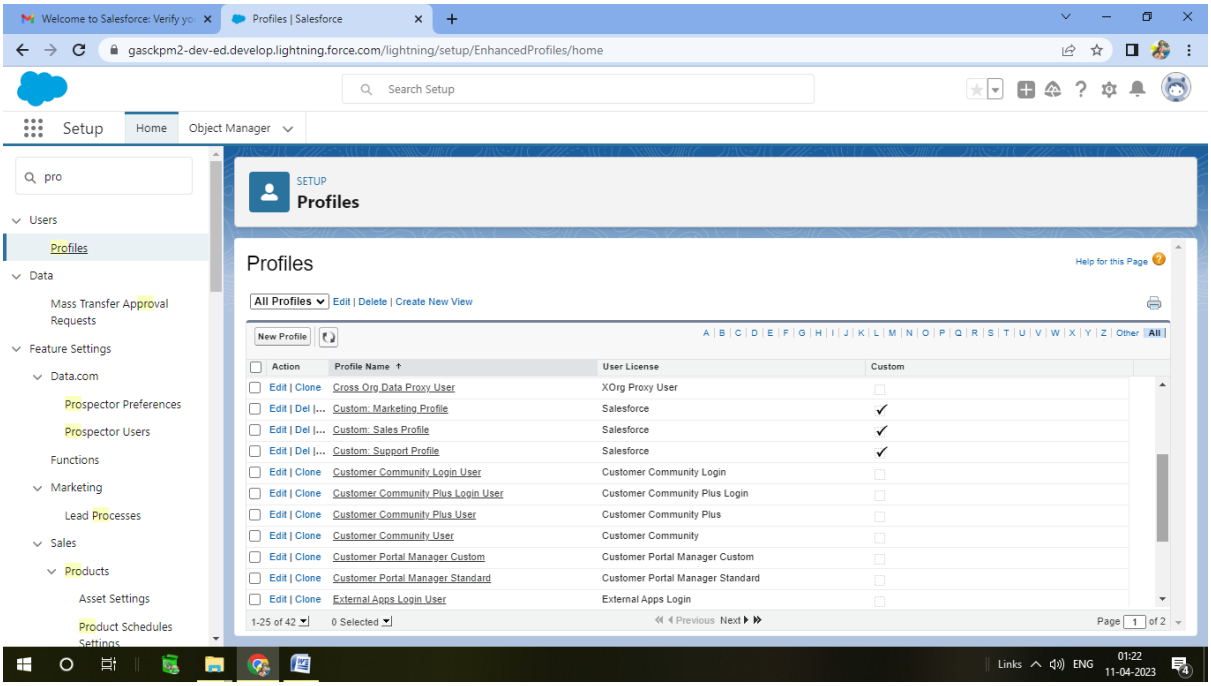
Enter a profile Name



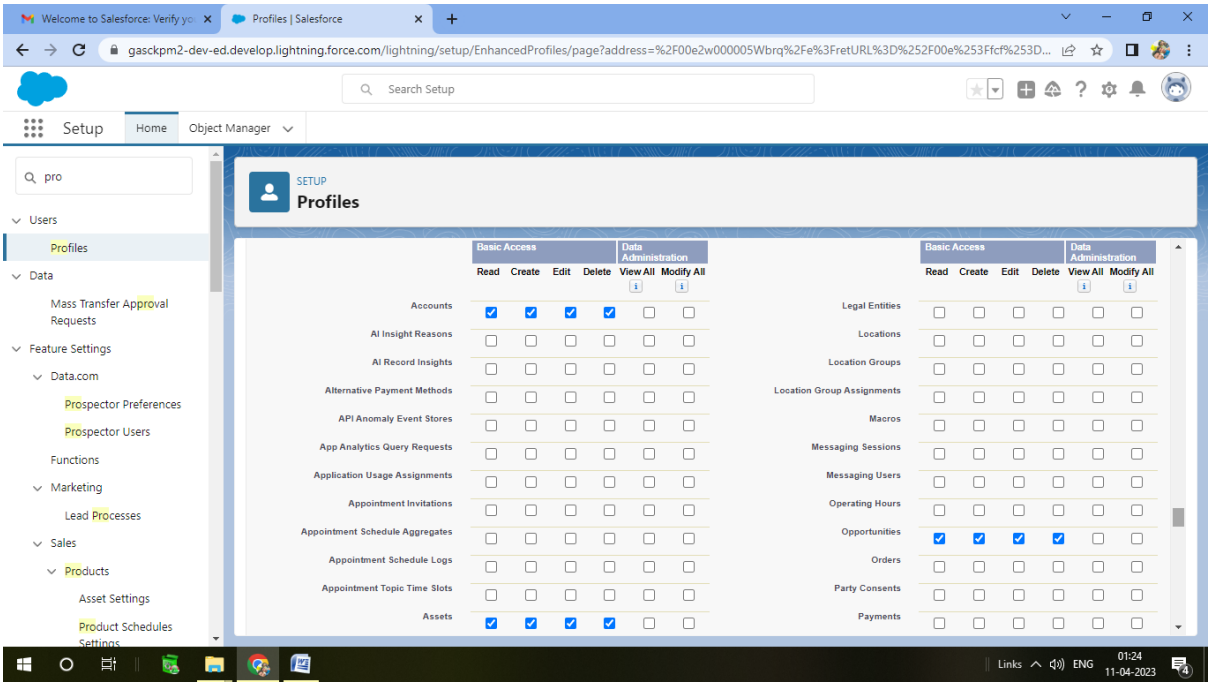
Click on the new created profile



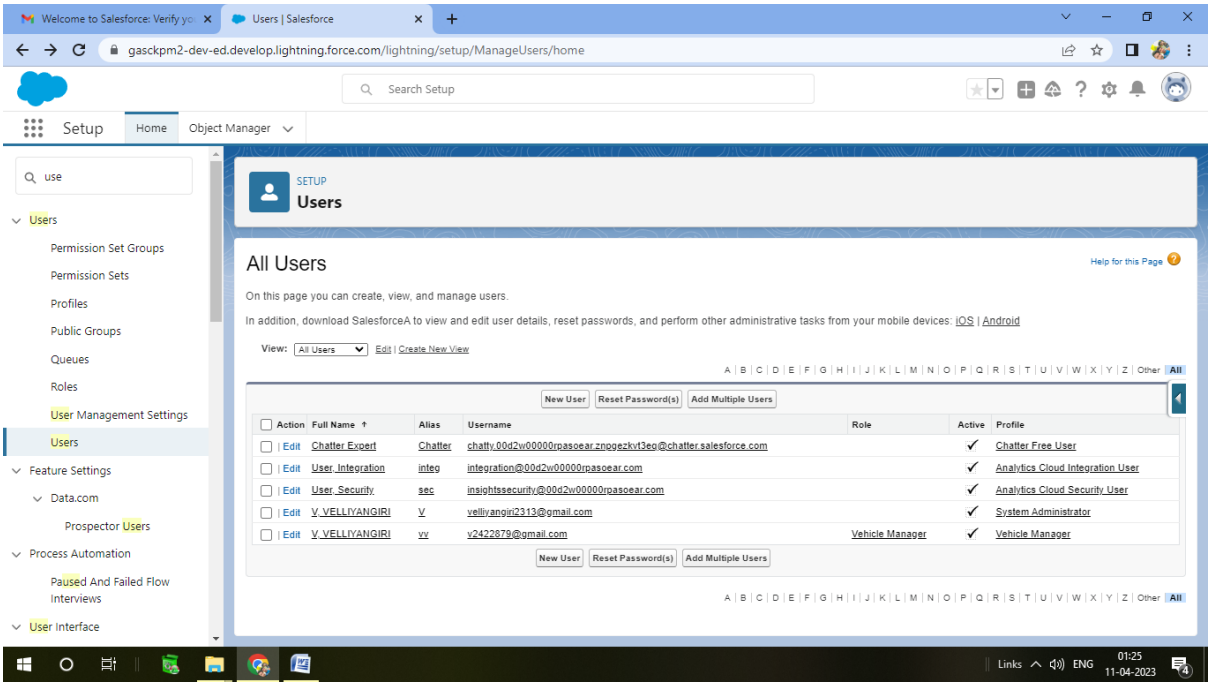
While still on the profile page, then click Edit



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.

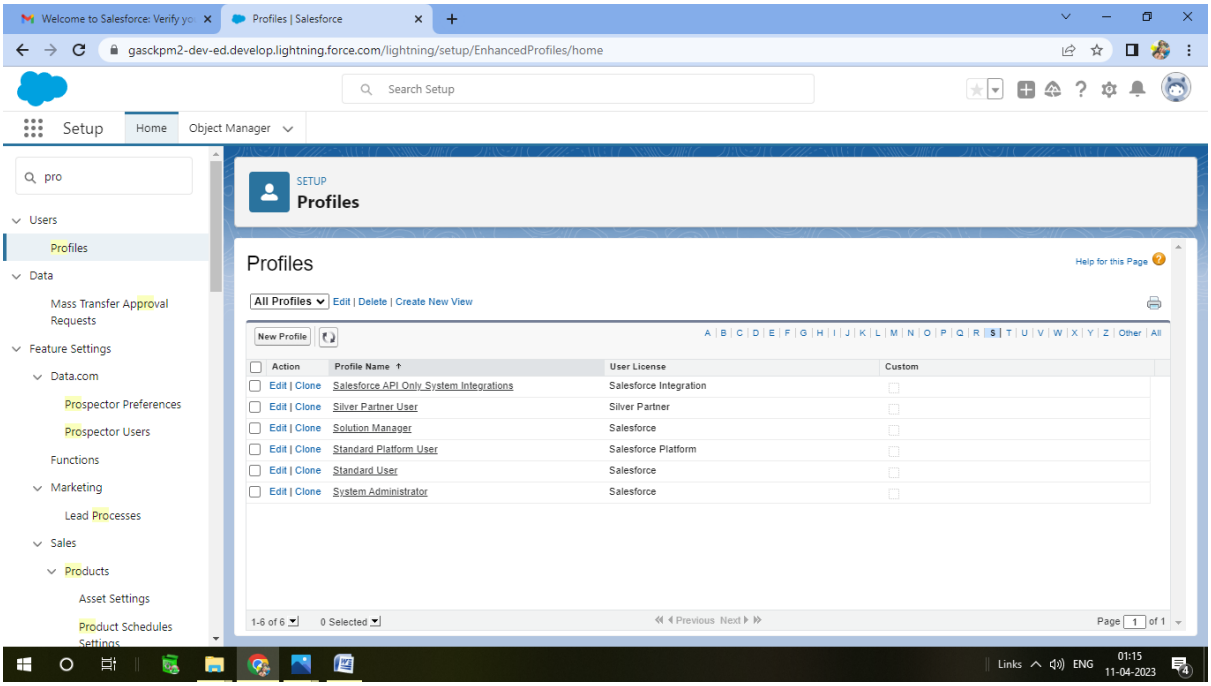
Milestone-6: Users

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 1:
Creating aUsers:

1. From Setup, in the Quick Find box, enter Users, and then select Users.
2. Click New User.

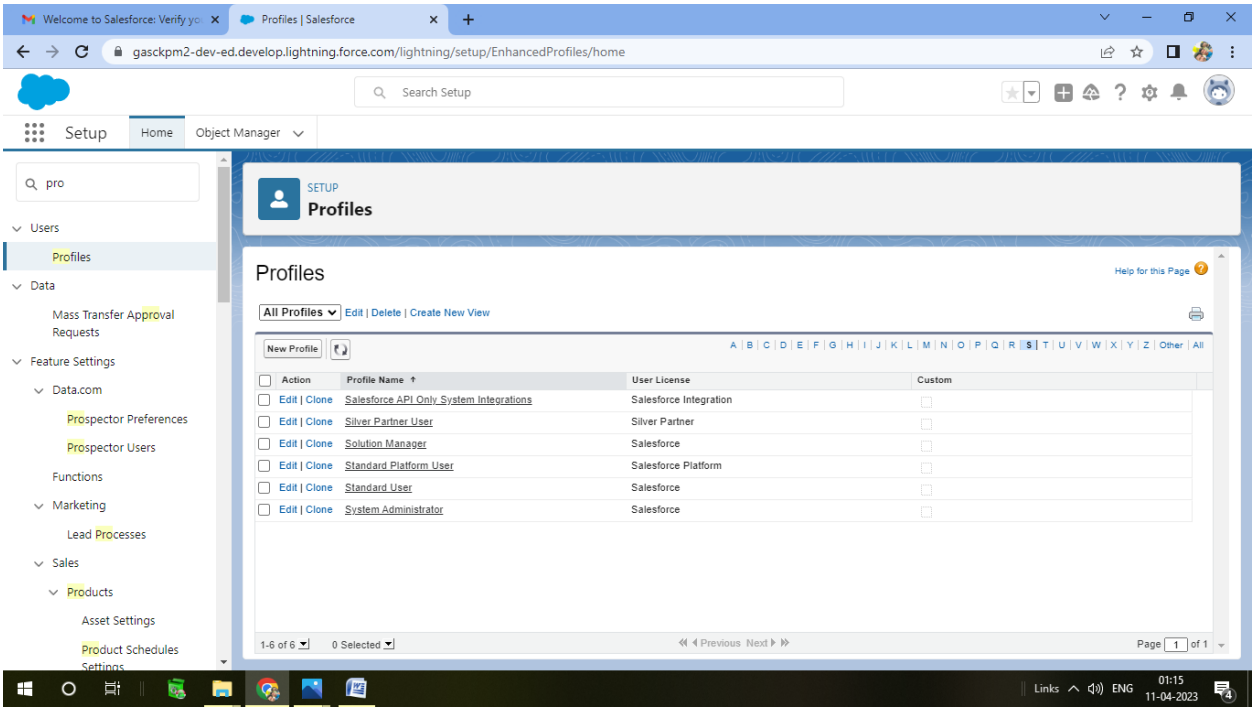
3. Enter the user's name John Teddy and (Your) email address and a unique username in the form of an email address. By default, the username is the same as the email address.
4. Select a **Role**(Vehicle Manager)
5. Select a User Licence As salesforce.
6. Select a profile as Vehicle Manager.
7. Check 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) → save.
Similarly



Milestone-7:Reports

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

Activity 1:
Reports And Dashboards.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Salesforce Integration
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Silver Partner
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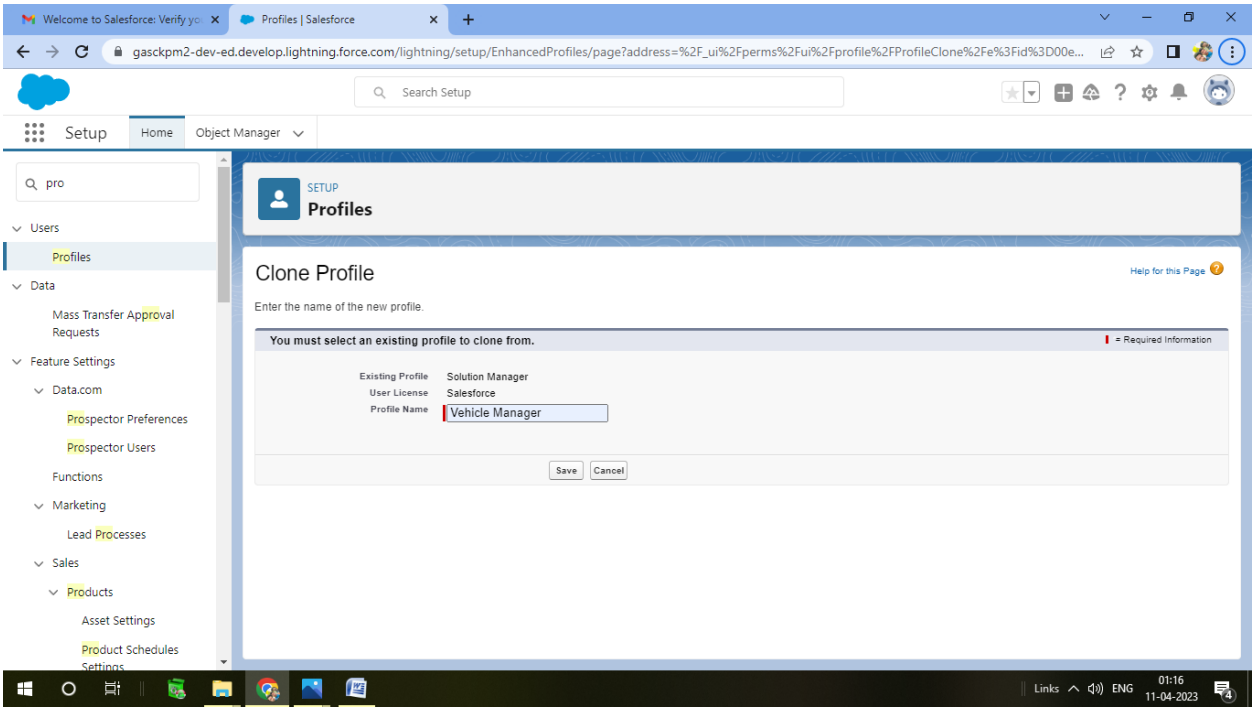
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Functions
Marketing
Lead Processes
Sales
Products
Asset Settings
Product Schedules
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Clone Profile
Help for this Page
Enter the name of the new profile.
You must select an existing profile to clone from.
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Solution Manager
User License
Salesforce
Profile Name
Vehicle Manager
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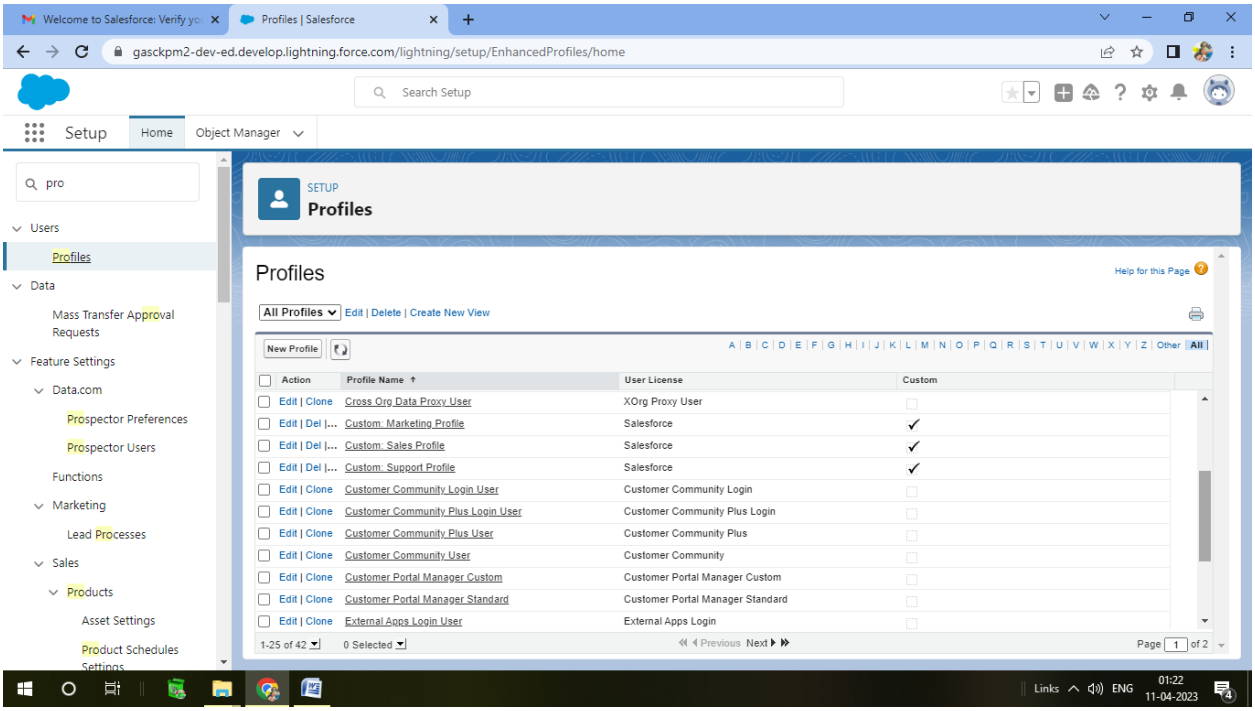
Welcome to Salesforce: Verify yo
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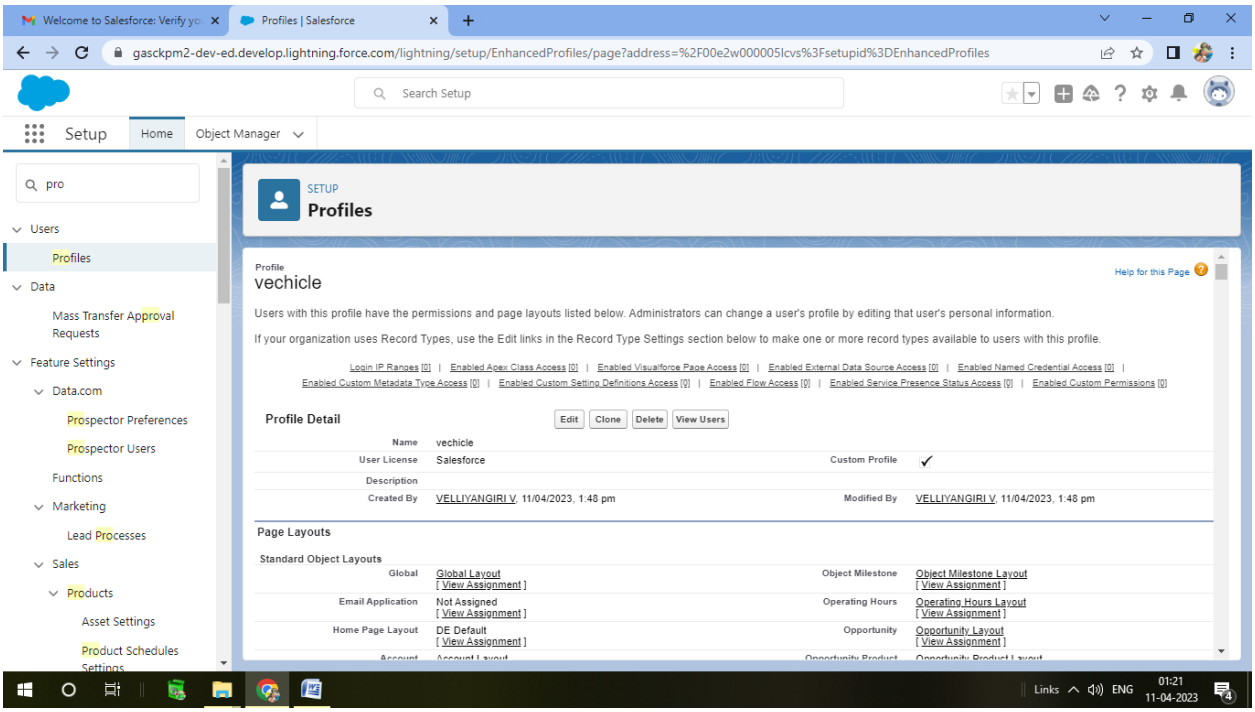
Search Setup
Setup
Home
Object Manager
pro
Users
Profiles
Data
Mass Transfer Approval Requests
Feature Settings
Data.com
Prospector Preferences
Prospector Users
Functions
Marketing
Lead Processes
Sales
Products
Asset Settings
Product Schedules
SETUP
Profiles
Profiles
Help for this Page
All Profiles
Edit | Delete | Create New View
New Profile
Action
Profile Name
User License
Custom
Edit | Clone
Cross Org Data Proxy User
XOrg Proxy User
Edit | Del |...
Custom: Marketing Profile
Salesforce
Custom: Sales Profile
Custom: Support Profile
Customer Community Login User
Customer Community Login
Customer Community Plus Login User
Customer Community Plus Login
Customer Community Plus User
Customer Community Plus
Customer Community User
Customer Community
Customer Portal Manager Custom
Customer Portal Manager Standard
External Apps Login User
External Apps Login
1-25 of 42
0 Selected
Previous
Next
Page 1 of 2
Links
ENG
01:22
11-04-2023


Welcome to Salesforce: Verify yo
Profiles | Salesforce
gasckpm2-dev-ed.develop.lightning.force.com/lightning/setup/EnhancedProfiles/page?address=%2F00e2w000005lcvs%3Fsetupid%3DEnhancedProfiles
Search Setup
Setup
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Object Manager
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Users
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Data
Mass Transfer Approval Requests
Feature Settings
Data.com
Prospector Preferences
Prospector Users
Functions
Marketing
Lead Processes
Sales
Products
Asset Settings
Product Schedules
SETUP
Profiles
Profile
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Help for this Page
Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information.
If your organization uses Record Types, use the Edit links in the Record Type Settings section below to make one or more record types available to users with this profile.
Login IP Ranges [0] | Enabled Apex Class Access [0] | Enabled Visualforce Page Access [0] | Enabled External Data Source Access [0] | Enabled Named Credential Access [0] | Enabled Custom Metadata Type Access [0] | Enabled Custom Setting Definitions Access [0] | Enabled Flow Access [0] | Enabled Service Presence Status Access [0] | Enabled Custom Permissions [0]
Profile Detail
Edit
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User License
Salesforce
Custom Profile
Description
Created By
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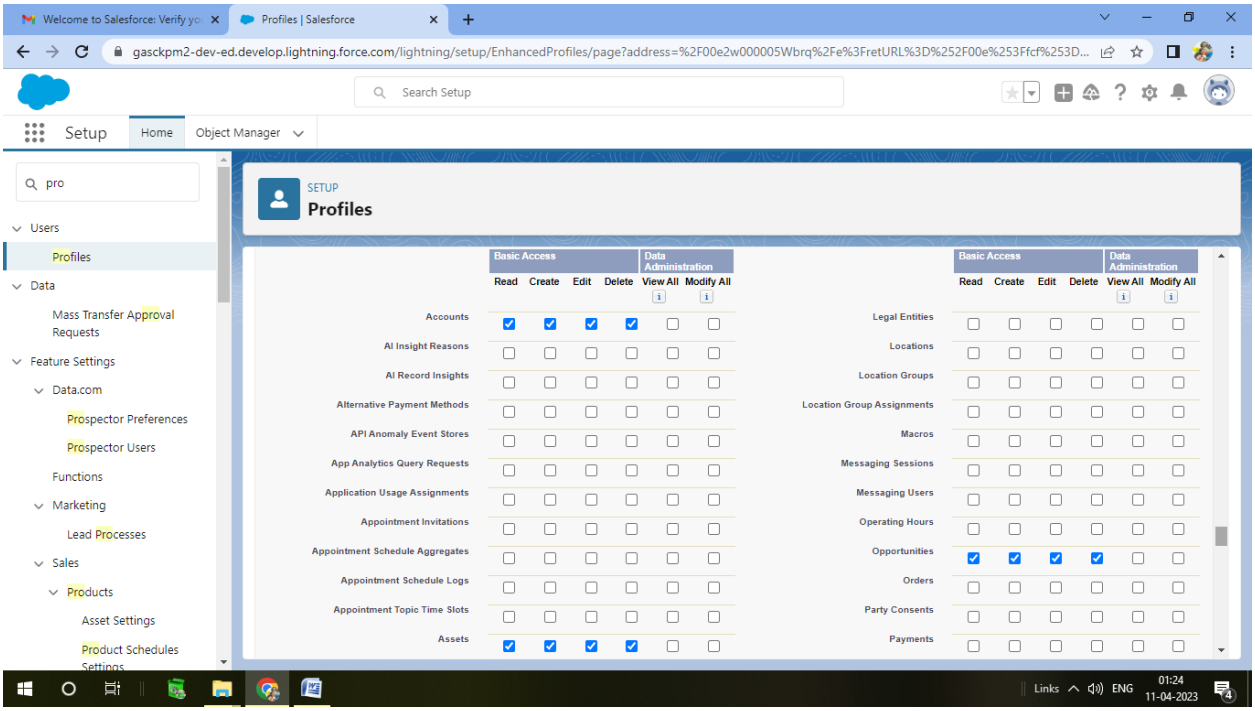
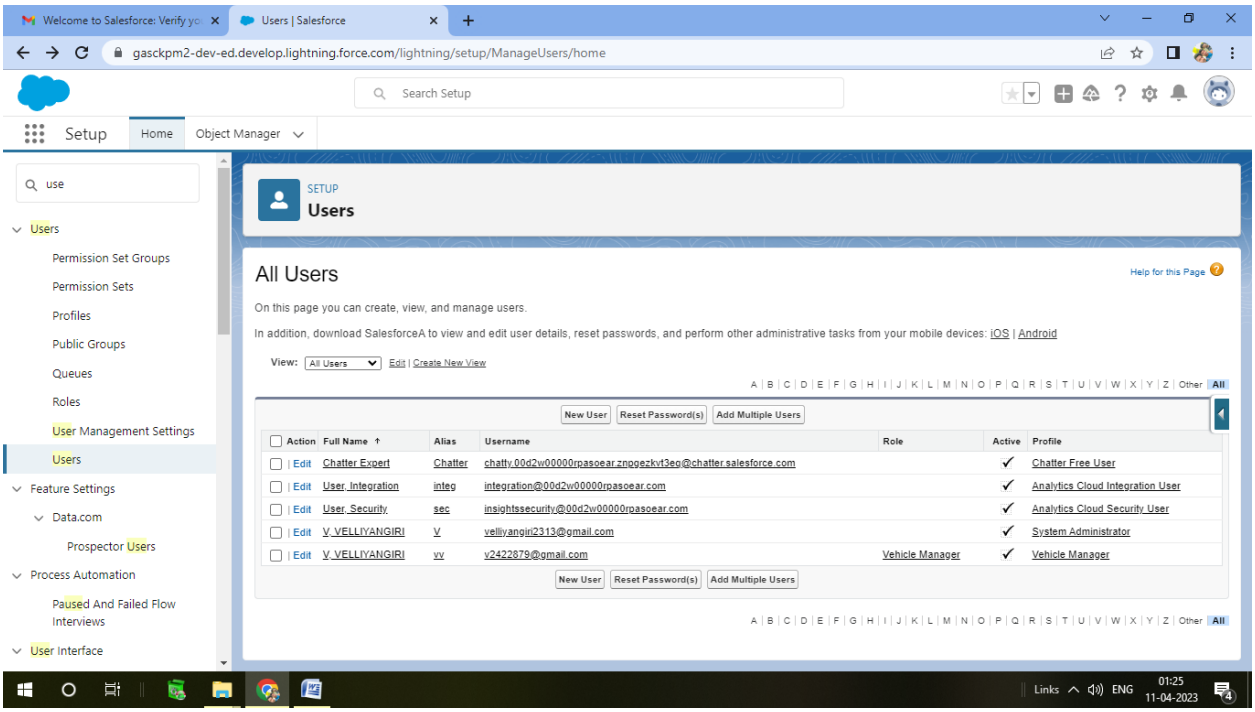
Modified By
VELLIYANGIRI V, 11/04/2023, 1:48 pm
Page Layouts
Standard Object Layouts
Global
Global Layout
[View Assignment]
Object Milestone
Object Milestone Layout
[View Assignment]
Email Application
Not Assigned
[View Assignment]
Operating Hours
Operating Hours Layout
[View Assignment]
Home Page Layout
DE Default
[View Assignment]
Opportunity
Opportunity Layout
[View Assignment]
Links
ENG
01:21
11-04-2023





Milestone-7:

Reports

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.
Activity 1:

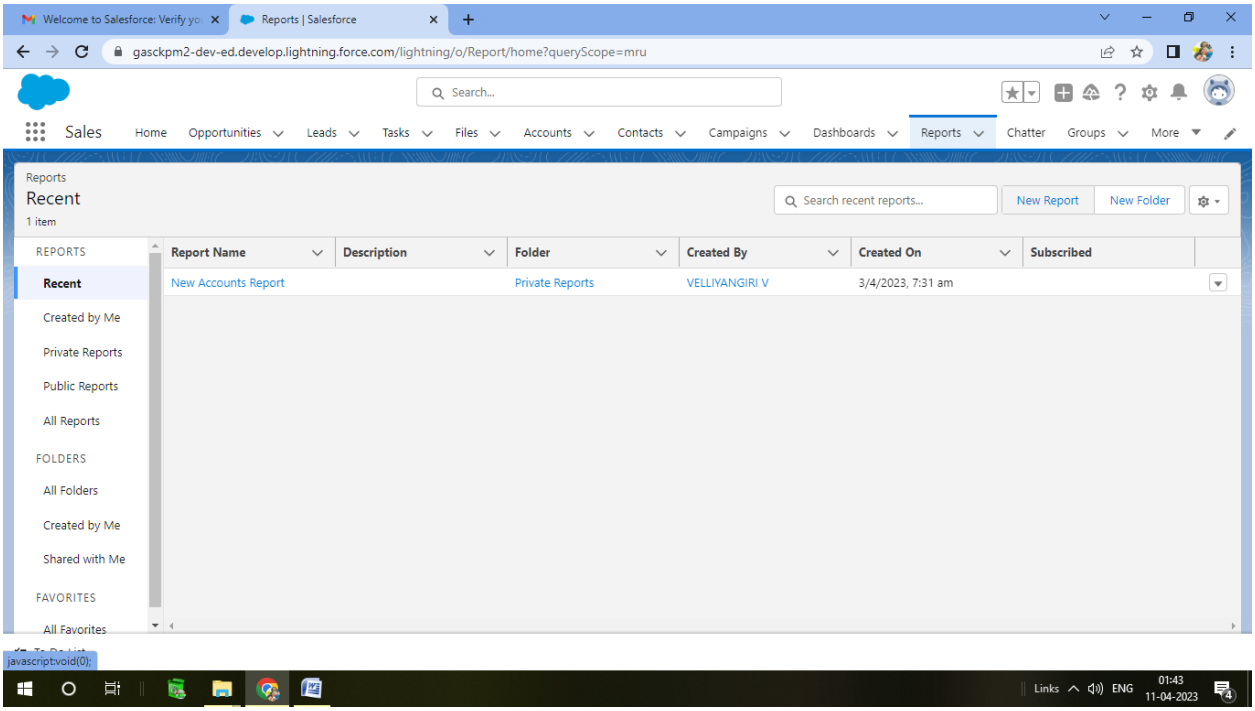
Reports And Dashboards.

● 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.

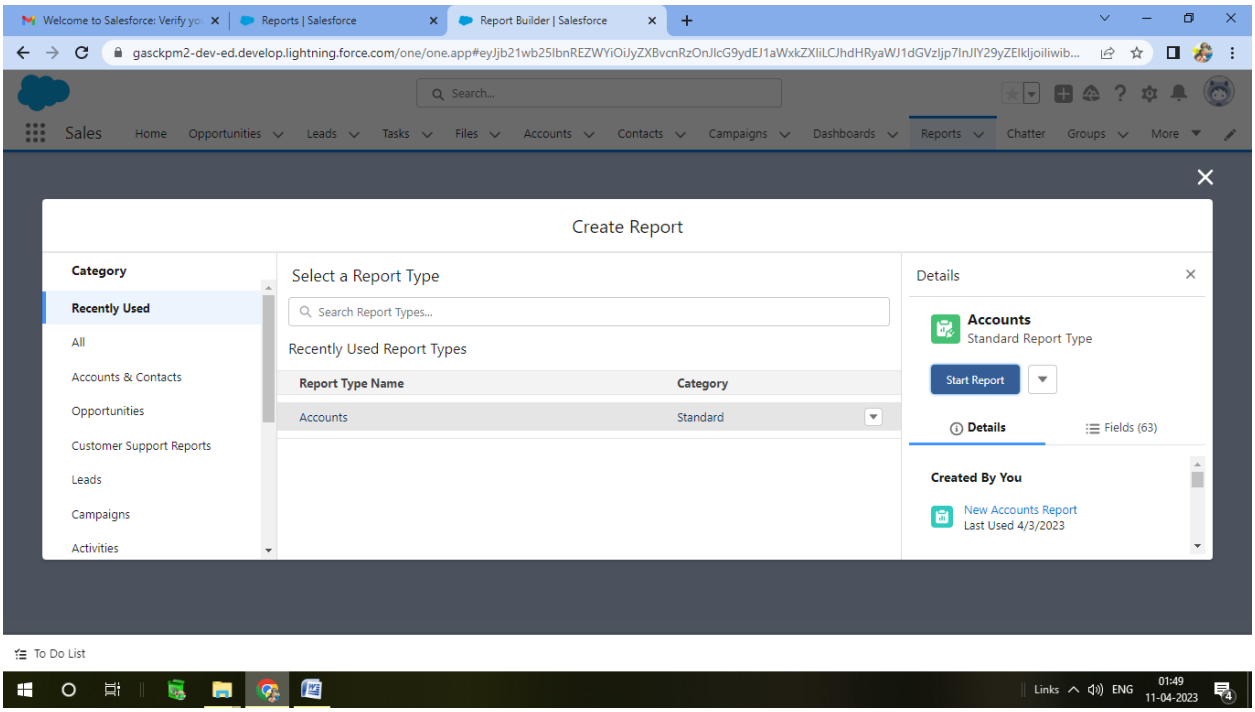
Activity 2:

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 → click on the reports tab.

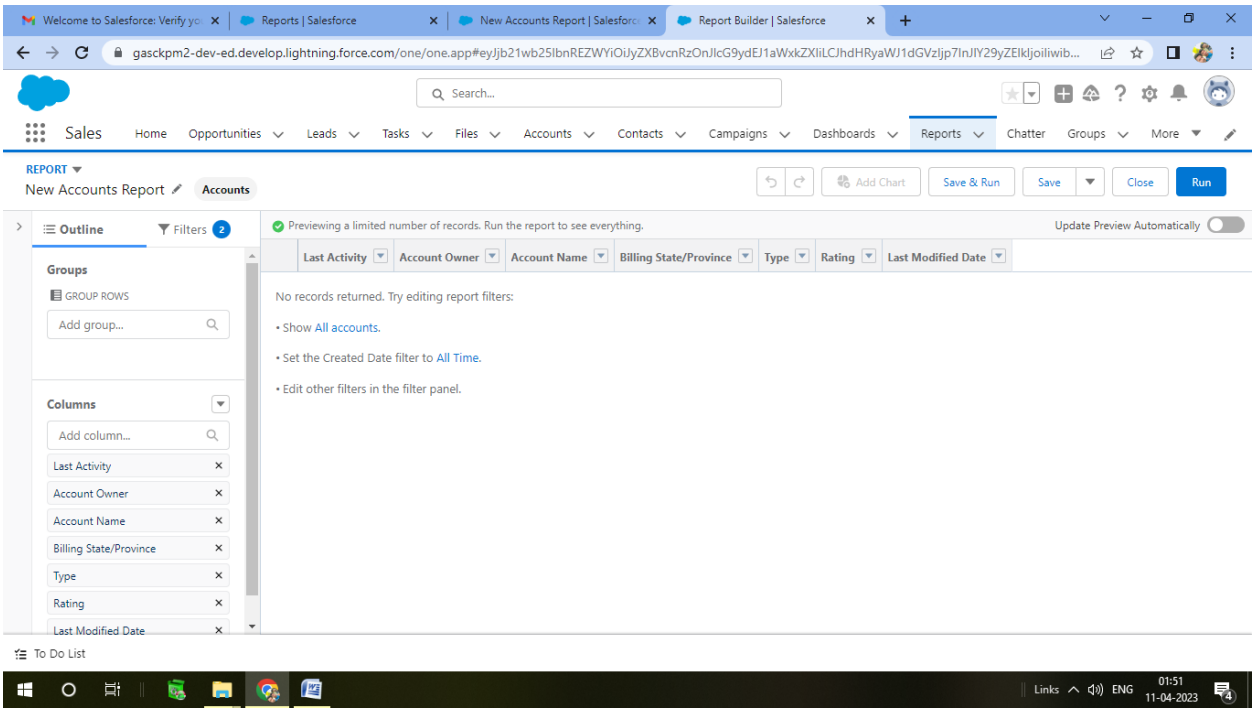


Click new Report



Select Report type from category of from report type panel or from search panel ▶ click on start report.

Customize your report, then save or run it.



4 Trailhead Profile Public URL

Team Lead – https://trailblazer.me/id/vvmaths

Team Member 1 - https://trailblazer.me/id/uttdrtr1

Team Member 2 –https://trailblazer.me/id/lokem13

Team Member 3 - https://trailblazer.me/id/naveb17

Team Member 4 – https://trailblazer.me/id/suguk4

Team Member 5 – https://trailblazer.me/id/sivak231

5 ADVANTAGES & DISADVANTAGE

Advantages – Vehicle Management

i) Duplication of the vehicle data is avoided

ii) As vehicle number is already stored in the master therefore human mistakes can be avoided

iii) Timely alerts ensure that penalties are avoided.

Disadvantage– Vehicle Management

i) **Active tracking based fleet management requires monthly subscription charges and data usage charges.**

ii) **It is difficult to manage and maintain fleet management system due to use of multiple technologies such as cloud servers, cellular wireless systems, fleet management software etc.**

iii) **It requires skilled resources to maintain such system. This increases maintenance costs.**

iv) **GPS device used in fleet management is power hungry which drains battery faster.**

v) **GPS signal does not pierce through the walls, solid structures, under water or dense trees. Hence it is difficult to track the fleet when they are in such regions or behind such locations.**

6 APPLICATIONS

The Vehicle Management System (VMS) is an application for the Automotive industry. It supports, in the area of Sales & Services, the business processes that you require as vehicle importer when dealing with your original equipment manufacturers (OEMs) and your dealers in new and used vehicle sales .

7 CONCLUSION

Online vehicle reservation system improves the existing system since we are in computerized world. With this new system is mandatory, it enables the user of the system (client, employee, System administrator) to reserve vehicles online and this reduces the wasting of time of the clients looking for where to go, increase the safety of the property. The developed system has been successfully deployed on a web-site. After connected to the system through the Internet, some feedbacks are found. This system's workflow of the front-end is user friendly and efficient enough to work. The system developed with future development possibilities in consideration. The object oriented approach of this system permits addition of new entities and methods, which will be helpful to interact with existing ones and to extend the functionalities. The developers of this system wishes to continue their involvement and contribution to this system for further development operation. Some new features will be added soon in this system. The developers of this system wish to add a Forum facility in this web-site, where all the registered users will be able to perform desired tasks.

8 FUTURE SCOPE

Features – Vehicle Management

1) **Vehicle Master captures all the information related to vehicles number, controlling location and so on.**
2) **One-stop information of vehicles includes engine number, registration number RC book number and more.**
3) **It also has capability to store information of statutory documents like insurance road tax, user can also upload scan copy of the documents.**
4) **Daily / Weekly / Monthly alerts can be set for the upcoming renewal of documents**
5) **Location wise user wise alert list can be configured.**