

VEHICLE MANAGEMENT SYSTEM

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INTRODUCTION

Overview

Vehicle Management is an application where a customer Details are stored 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.

Purpose

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.

Develop a comprehensive vehicle management system that can be customized to the needs of any organization.

Implement a user-friendly interface that allows users to access and manage vehicle data from any device.

Integrate the system with other relevant applications such as accounting and inventory management systems.

Provide real-time analytics and reporting features to help organizations make data-driven decisions about their fleet management.

THEORITICAL ANALYSIS

STEPS TO CREATE OBJECT

- 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.

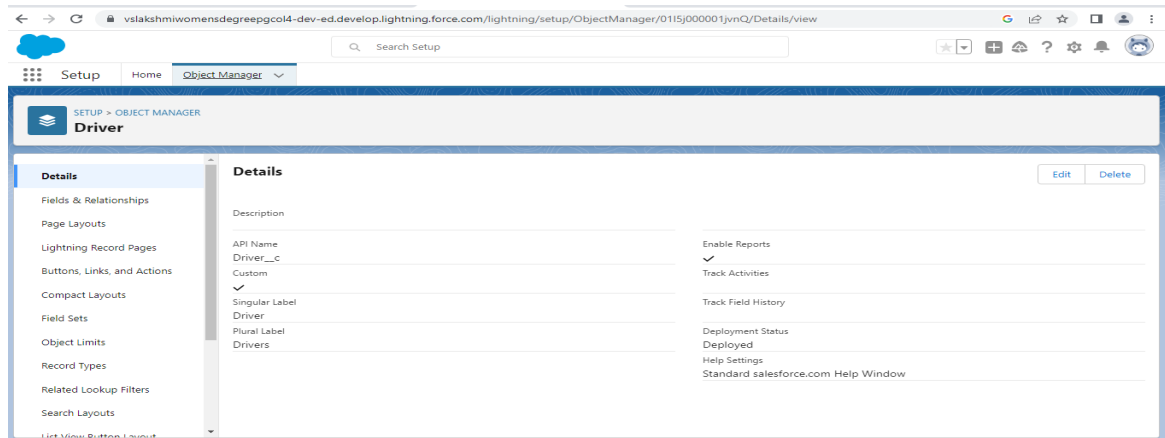
On the Custom Object Definition page, create the object as follows:

- 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.

The screenshot shows the Salesforce Object Manager interface for a custom object named 'Vehicle'. The browser address bar indicates the URL: `vsalakshmiwomensdegreepgcol4-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/0115j000001jvmm/Details/view`. The page has a navigation bar with 'Setup', 'Home', and 'Object Manager' tabs. The 'Object Manager' tab is active, showing a sidebar with a list of configuration options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Search Layouts. The 'Details' section is expanded, displaying various configuration fields. On the left, the 'API Name' is 'Vehicle__c', 'Custom' is checked, 'Singular Label' is 'Vehicle', and 'Plural Label' is 'Vehicles'. On the right, 'Enable Reports' and 'Track Activities' are checked, 'Track Field History' is unchecked, 'Deployment Status' is 'Deployed', and 'Help Settings' is 'Standard salesforce.com Help Window'. 'Edit' and 'Delete' buttons are visible in the top right corner of the details section.

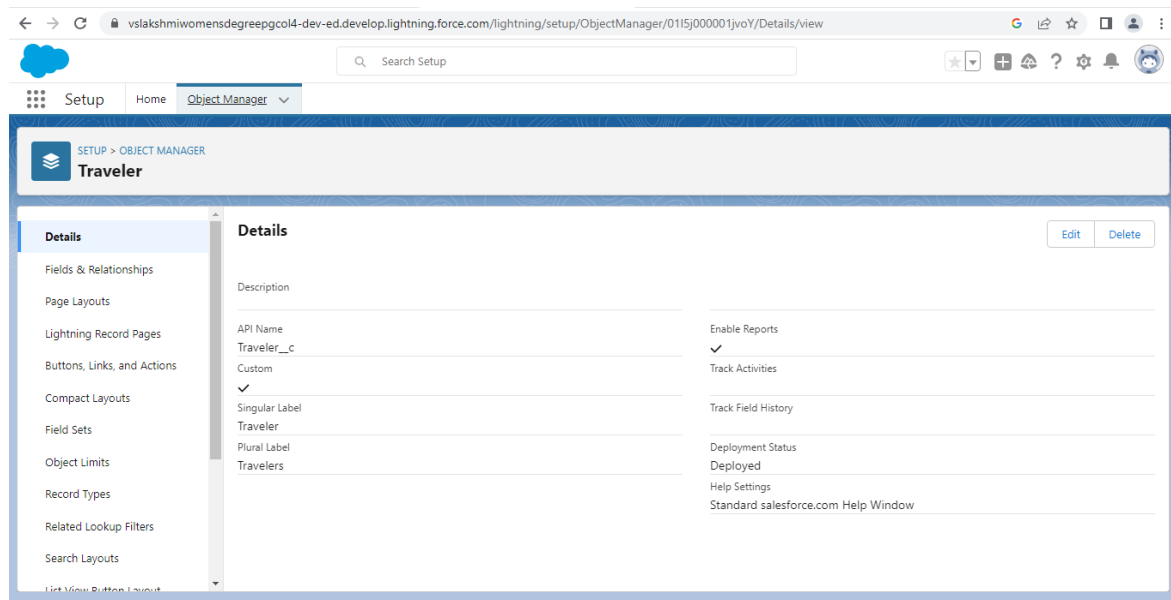
Details	
Description	
API Name	Vehicle__c
Custom	<input checked="" type="checkbox"/>
Singular Label	Vehicle
Plural Label	Vehicles
Enable Reports	<input checked="" type="checkbox"/>
Track Activities	<input checked="" type="checkbox"/>
Track Field History	<input type="checkbox"/>
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

- *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.*



- *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.*
- *For Object, select Traveler.*
- *For Tab Style, select any icon.*
- *Leave all defaults as is. Click Next, Next, and Save.*



Fields And Relationship

An object relationship in Salesforce is a two-way association between two objects. Relationships are created by creating custom relationship fields on an object. This is done so that when users view records, they can also see and access related data.

Lightning App

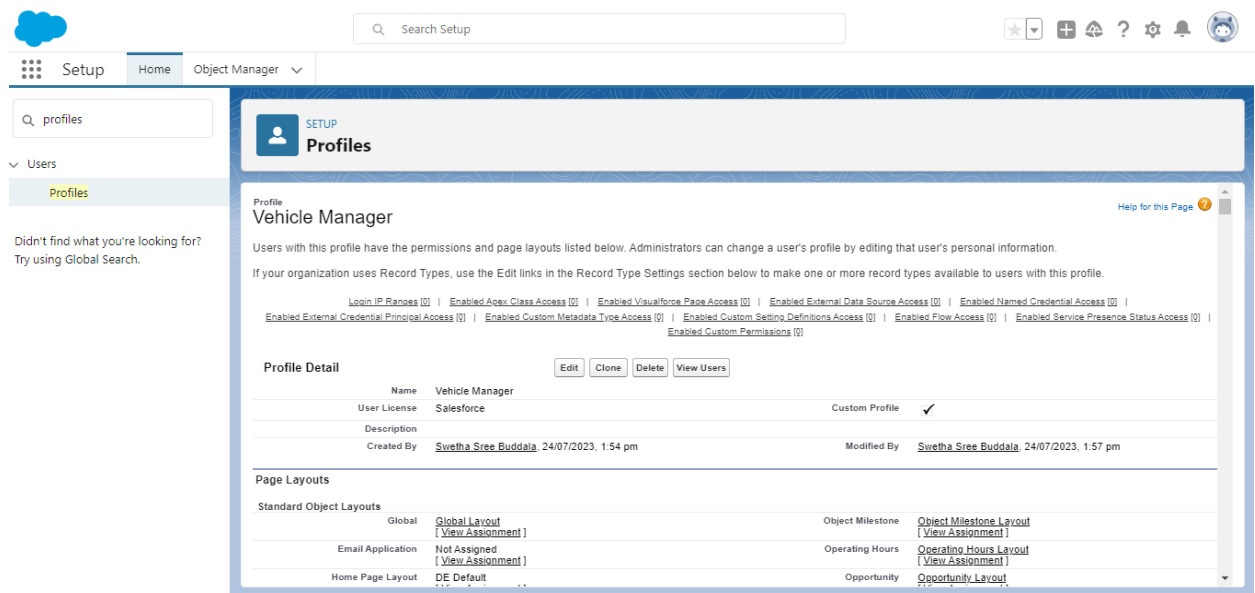
Apps in Salesforce are a group of tabs that help the application function by working together as a unit. It has a name, a logo, and a particular set of tabs. The simplest app usually has just two tabs.

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

Users

A user is anyone who logs in to Salesforce. Users are employees at your company, such as sales reps, managers, and IT specialists, who need access to the company's records. Every user in Salesforce has a user account.



The screenshot shows the Salesforce Setup interface for the 'Profiles' section. The left sidebar contains a search bar with 'profiles' entered, a 'Users' dropdown menu, and a 'Profiles' link. The main content area is titled 'Profiles' and shows the details for the 'Vehicle Manager' profile. The profile is a custom profile with the user license 'Salesforce'. The 'Page Layouts' section shows the following assignments:

Standard Object Layouts	Global	Object Milestone
Global Layout	View Assignment	Object Milestone Layout
Email Application	Not Assigned	Operating Hours Layout
Home Page Layout	DE Default	Opportunity Layout

User Adoption

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

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.

The screenshot shows the Salesforce Reports interface. The top navigation bar includes the Salesforce logo, a search bar, and various utility icons. The main navigation menu is open, showing options like Vehicle Management, Accounts, Contacts, Opportunities, Vehicles, Drivers, Travelers, Reports, and Dashboards. The 'Reports' tab is selected. The 'Recent' section shows a list of reports. The table below contains the data for the recent reports.

REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	Opportunity Details		Private Reports	Swetha Sree Buddala	26/7/2023, 11:14 am	

The left sidebar shows a navigation menu with categories: REPORTS (Recent, Created by Me, Private Reports, Public Reports, All Reports), FOLDERS (All Folders, Created by Me, Shared with Me), and FAVORITES (All Favorites).

The screenshot shows the Salesforce Dashboards interface. The top navigation bar is the same as the Reports interface. The main navigation menu is open, and the 'Dashboards' tab is selected. The 'Recent' section shows a list of dashboards. The table below contains the data for the recent dashboards.

DASHBOARDS	Dashboard Name	Description	Folder	Created By	Created On	Subscribed
Recent	Opportunity Details		Private Dashboards	Swetha Sree Buddala	26/7/2023, 11:14 am	

The left sidebar shows a navigation menu with categories: DASHBOARDS (Recent, Created by Me, Private Dashboards, All Dashboards), FOLDERS (All Folders, Created by Me, Shared with Me), and FAVORITES (All Favorites).

RESULT

Vehicle Management

Accounts

Contacts

Opportunities

Vehicles

Drivers

Travelers

Reports

Dashboards

Search...

★

+

🔍

?

⚙️

🔔

👤

Reports

Recent

1 item

Search recent reports...

New Report

New Folder

⚙️

REPORTS

Report Name

Description

Folder

Created By

Created On

Subscribed

Recent

Opportunity Details

Private Reports

Swetha Sree Buddala

26/7/2023, 11:14 am

▼

Created by Me

Private Reports

Public Reports

All Reports

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

All Favorites

Vehicle Management

Accounts

Contacts

Opportunities

Vehicles

Drivers

Travelers

Reports

Dashboards

Search...

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⚙️

🔔

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Dashboards

Recent

1 item

Search recent dashboards...

New Dashboard

New Folder

⚙️

DASHBOARDS

Dashboard Name

Description

Folder

Created By

Created On

Subscribed

Recent

Opportunity Details

Private Dashboards

Swetha Sree Buddala

26/7/2023, 11:14 am

▼

Created by Me

Private Dashboards

All Dashboards

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

All Favorites

Vehicle Management

Accounts

Contacts

Opportunities

Vehicles

Drivers

Travelers

Reports

Dashboards

Search...

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Dashboard

Opportunity Details

Last refreshed 1 day ago. Refresh this dashboard to see the latest data.

As of 26-Jul-2023, 11:15 am Viewing as Swetha Sree Buddala

Refresh

Edit

Subscribe

▼

Opportunity Details

⚙️

Own	Oppo	Account Na	Opportunity Name	Stage
-	Swetha Sree Buddala	GenePoint	GenePoint Lab Generators	Id. Decisi
-	Swetha Sree Buddala	GenePoint	GenePoint SLA	Closed V
-	Swetha Sree Buddala	Edge Communicati ons	Edge Emergency Generator	Closed V

View Report (Opportunity Details)

ADVANTAGES AND DISADVANTAGES

- **Improved fleet management:** *Allows organizations to optimize vehicle allocation and scheduling. Reduce vehicle downtime and improve overall fleet efficiency.*
- **Cost savings:** *Helps organizations reduce fuel consumption, maintenance costs, and insurance premiums, and avoid penalties for missed maintenance tasks or expired registrations.*
- **Increased productivity:** *Enables drivers and vehicle managers to access vehicle information and perform tasks more efficiently, reducing administrative workload and improving productivity.*
- **Data-driven decision making:** *Provides real-time analytics and reporting features that allow organizations to make data-driven decisions about their fleet management*

APPLICATIONS

1. **Fleet management:** *The system can be used by transportation and logistics companies to manage their fleet of vehicles. They can use the system to track the location of each vehicle, monitor fuel consumption, and schedule maintenance tasks, The system can also be used to optimize vehicle utilization, reduce downtime, and improve overall fleet efficiency.*
2. **Government agencies:** *Government agencies such as police departments, fire departments, and public works departments can use the system to manage their vehicle fleets. They can use the system to track vehicle usage, maintenance schedules, and fuel consumption. The system can also be used to monitor driver behavior and performance, ensuring that vehicles are being used safely and efficiently.*
3. **Car rental companies:** *Car rental companies can use the system to manage their rental fleet, they can use the system to track vehicle availability. Schedule maintenance tasks, and monitor vehicle usage. The system can also be used to manage customer*

information and bookings, ensuring that customers have a seamless experience.

4. **Construction companies:** *Construction companies can use the system to manage their construction vehicle fleet. They can use the system to track vehicle usage, schedule maintenance tasks, and monitor fuel consumption. The system can also be used to manage driver information and monitor driver behavior, ensuring that vehicles are being used safely and efficiently.*

5. **Corporate fleets:** *large corporations that have their own vehicle can use the system to manage their vehicles. To track vehicle usage, monitor fuel consumption, and schedule maintenance tasks.*

CONCLUSION

The Vehicle Management System is a powerful tool for organizations that want to manage their fleet of vehicles efficiently. Built using Salesforce, it provides a customizable and user-friendly interface that allows users to access and manage vehicle data from any device. Its advanced features, such as maintenance scheduling, fuel consumption tracking and driver management, help organizations optimize their fleet utilization and reduce costs. With real-time analytics and reporting features.

FUTURE SCOPE

Artificial Intelligence (AI) and Machine Learning (ML): *As AI and ML technologies become more prevalent and powerful, there is a growing opportunity to integrate them into vehicle management systems.*

Internet of Things (IoT) integration: *IoT devices such as sensors and GPS trackers are increasingly being used to gather real-time data on vehicle performance and location. Integrating this data with a vehicle management system can provide valuable insights for fleet optimization, maintenance scheduling, and driver safety.*

Blockchain integration: *The use of blockchain technology in the automotive industry is still in its infancy, but it has the potential to revolutionize vehicle management systems. By providing secure and transparent data sharing and tracking. Blockchain could help prevent fraud, improve supply chain management, and streamline administrative processes.*

Advanced analytics and reporting: *As the amount of data generated by vehicle management systems continues to grow, there is an opportunity to develop more advanced*

analytics and reporting tools. For example, predictive analytics could be used to forecast maintenance needs, while machine learning algorithms could be used to optimize fuel consumption and reduce emissions.

Integration with other systems: *Vehicle management systems are just one part of an organization's overall operations. As such, there is a growing need to integrate vehicle management systems with other systems such as inventory management, accounting, and customer relationship management. business performance.*

Overall, the future of vehicle management systems using Salesforce is very promising, and we can expect to see continued growth and development in the coming years as new technologies and capabilities emerge.