

VEHICLE MANAGEMENT SYSTEM USING SALESFORCE

1. Introduction:

1.1 Overview:

A Vehicle Management System (VMS) is a software solution used to manage various aspects of vehicle operations such as vehicle tracking, maintenance, fuel consumption, and more. Salesforce is a powerful cloud-based Customer Relationship Management (CRM) platform that can be used to develop a custom VMS.

1.2 Purpose:

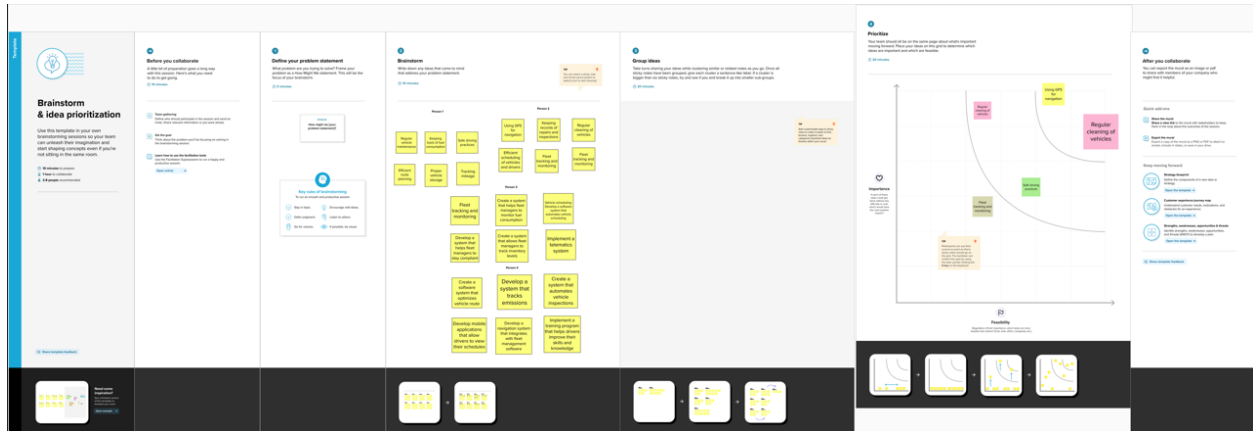
Vehicle Management System using Salesforce can help you optimize your vehicle fleet, reduce costs, and improve overall performance. It can also provide increased visibility and control over your operations, allowing you to make informed decisions and better serve your customers.

2. Problem Definition & Design Thinking

2.1 Empathy Map:



2.2 Ideation & Brainstorming and Screenshot:



3. Result

3.1 Data Model:

Object Name	Fields in the Object		
Create an Object		Field Label	Data Types
		Customer Name	Text
		Customer Mobile No	Number
		Vehicle Type i) 2-Wheeler ii) 4-Wheeler	Picklist
		2 WHEELERS 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) VOLKSWAGEN viii) BENZ	Picklist

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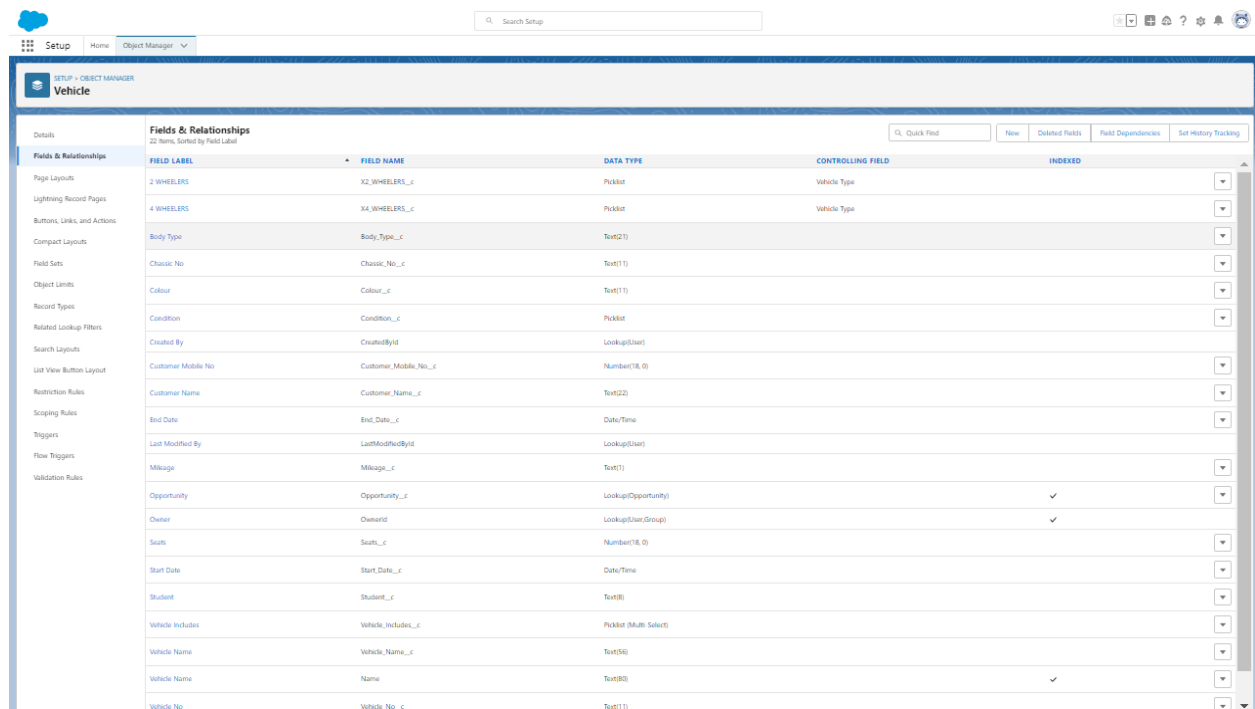
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		ix) AUDI x) VOLVO	
		Vehicle Name	Text
		Vehicle No	Text
		Chassic No	Text
		Colour	Text
		Body Type	Text
		Vehicle Includes i) Fire Extenuation ii) First Aid Kit iii) Multi Charger Kit iv) Stepney v) Stereo vi) Tool Kit vii) Tracking Device viii) Tyre Jack	Multi Picklist
		Condition i) Good ii) Medium iii) Least	Picklist
		Mileage	Text
		Seats	Number
		Start Date	Date/Time
		End Date	Date/Time
		Opportunity	Lookup (opportunities)
Driver Object	Field	Data Type	
	Driver Name	Text	
	Licence No	Text	

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	Mobile No	Number
	Fair Per Hour	Text
	Vehicle	Lookup (Vehicle)

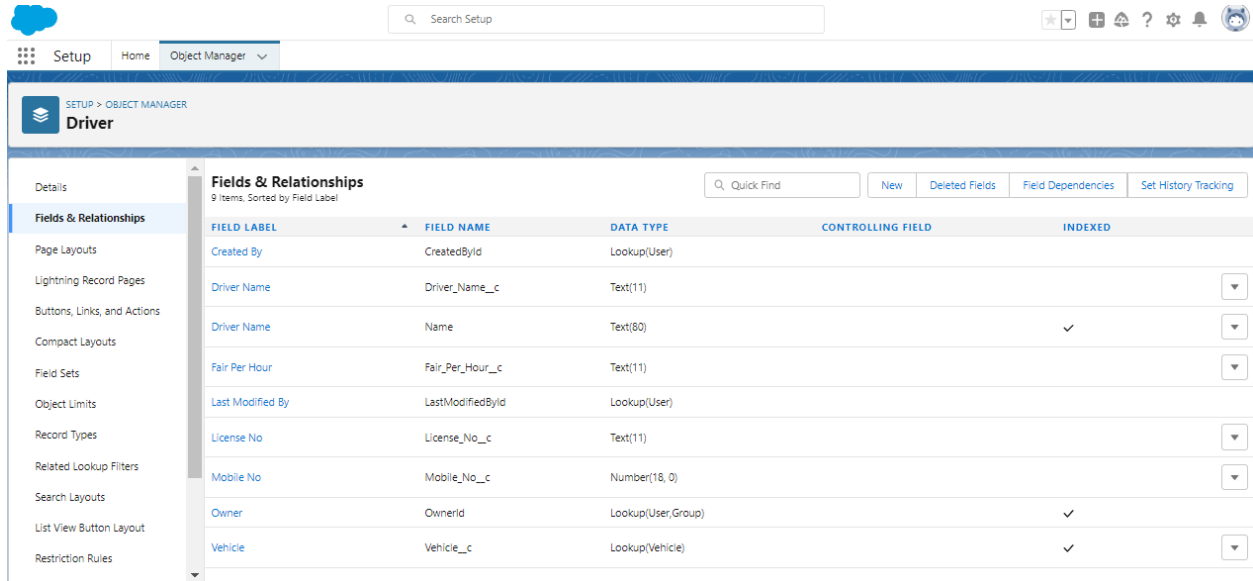
3.2 Activity & Screenshot



The screenshot displays the 'Object Manager' interface for the 'Vehicle' object. The 'Fields & Relationships' tab is active, showing a list of fields with their labels, names, data types, and controlling fields. The fields are listed in a table with columns: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
2 WHEELERS	X2_WHEELERS_c	Picklist	Vehicle Type	
4 WHEELERS	X4_WHEELERS_c	Picklist	Vehicle Type	
Body Type	Body_Type_c	Text(21)		
Chassis No	Chassis_No_c	Text(11)		
Colour	Colour_c	Text(11)		
Condition	Condition_c	Picklist		
Created By	CreatedById	Lookup(User)		
Customer Mobile No	Customer_Mobile_No_c	Number(16, 0)		
Customer Name	Customer_Name_c	Text(22)		
End Date	End_Date_c	Date/Time		
Last Modified By	LastModifiedId	Lookup(User)		
Mileage	Mileage_c	Text(11)		
Opportunity	Opportunity_c	Lookup(Opportunity)		✓
Owner	OwnerId	Lookup(User Group)		✓
Seats	Seats_c	Number(16, 0)		
Start Date	Start_Date_c	Date/Time		
Student	Student_c	Text(8)		
Vehicle Includes	Vehicle_Includes_c	Picklist (Multi Select)		
Vehicle Name	Vehicle_Name_c	Text(56)		
Vehicle Name	Name	Text(80)		✓
Vehicle No	Vehicle_No_c	Text(11)		

All the Fields for the Vehicle Object are Created.



The screenshot shows the Salesforce Setup interface for the 'Driver' object. The 'Fields & Relationships' section is active, displaying a list of 9 fields. The fields are sorted by Field Label. The table includes columns for Field Label, Field Name, Data Type, Controlling Field, and Indexed status. Each field has a dropdown arrow on the right for further actions.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Driver Name	Driver_Name__c	Text(11)		
Driver Name	Name	Text(80)		✓
Fair Per Hour	Fair_Per_Hour__c	Text(11)		
Last Modified By	LastModifiedById	Lookup(User)		
License No	License_No__c	Text(11)		
Mobile No	Mobile_No__c	Number(18, 0)		
Owner	OwnerId	Lookup(User,Group)		✓
Vehicle	Vehicle__c	Lookup(Vehicle)		✓

All the Fields for the Driver Object are Created.

4. Trailhead Profile Public URL

Team Leader Nandha Kumar B - <https://trailblazer.me/id/nkumarb7>

Team Member 1 Prasanth R -
<https://trailblazer.me/id/prasanthravikumaran>

Team Member 2 Ranjith R - <https://trailblazer.me/id/ranjr22>

Team Member 3 Sabarinathan P - <https://trailblazer.me/id/sabap7>

5 Advantages and Disadvantages

5.1 ADVANTAGE

- ❖ Improved Efficiency
- ❖ Better Maintenance
- ❖ Reduced Fuel Consumption
- ❖ Enhanced Driver Performance
- ❖ Increased Visibility
- ❖ Costs Savings

5.2 DISADVANTAGE

- ❖ Resistance to Change
- ❖ Data Security
- ❖ Costs
- ❖ System Downtime
- ❖ Complexity

6. Application

- Transportation: Transportation companies can use a vehicle management system to track vehicle location, monitor fuel consumption, and improve driver safety.
- Construction and Field Services: Companies that provide field

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services, such as construction, repair, or maintenance services, can use a vehicle management system to dispatch technicians to job sites, track service vehicles, and optimize scheduling.

- **Public Transportation:** Public transportation agencies can use a vehicle management system to track buses and trains, optimize routes, and improve service reliability.
- **Emergency Services:** Emergency services, such as police, fire, and ambulance services, can use a vehicle management system to track emergency vehicles, improve response times, and dispatch resources more efficiently.
- **School Districts:** School districts can use a vehicle management system to track buses, optimize routes, and improve safety for students.

7. Conclusion

A vehicle management system using Salesforce can provide a range of benefits for organizations that rely on a fleet of vehicles to carry out their operations. These benefits include improved efficiency, better maintenance management, reduced fuel consumption, enhanced driver performance, increased visibility, cost savings, and improved customer service. However, there are also some potential disadvantages to consider, such as cost, complexity, data security, system downtime, and resistance to change. Nevertheless, a well-

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designed and implemented vehicle management system can help organizations optimize their fleet operations, reduce costs, and improve overall performance.

8. FUTURE SCOPE

Given how quickly technology is developing and how many new breakthroughs are being made, a vehicle management system utilising Salesforce has a very broad future application. Here are a few probable advancements for vehicle management systems in the future:

- **Integration with IoT:** To gather data in real-time on vehicle performance and condition as well as track the whereabouts of the cars, vehicle management systems can be combined with IoT (Internet of Things) gadgets.
- **Predictive Maintenance:** Using artificial intelligence and machine learning algorithms, a vehicle management system may forecast maintenance needs based on driving habits and other variables. This can lower repair expenses and assist to avoid breakdowns.
- **Autonomous Vehicles:** As the technology behind them develops, a fleet of self-driving cars can be managed and watched over using a vehicle management system.
- **Advanced Analytics:** By analysing the data gathered by the vehicle management system, advanced analytics may be used to spot patterns and trends as well as to inform decisions.
- **Fleet managers can monitor their fleets at any time and from any location thanks to mobile access to vehicle management systems.**

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Overall, a vehicle management system has a promising future due to the constant introduction of new technology and advancements. Organisations now have tremendous potential to optimise their fleets and increase their productivity and cost savings.