H.H THE RAJAH'S COLLEGE
PUDUKKOTTAI – 622 001

DEPARTMENT OF MATHEMATICS

NAAN MUDHALVAN – SMART BRIDGE PROJECT

PROJECT TITLE
Vehicle Management System Using Salesforce

SUBMITTED BY

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INTRODUCTION

Vehicle Management System is a software application that allows businesses or organizations to manage their vehicle fleets efficiently. It provides a platform for managing all aspects of a fleet of vehicles, including maintenance, fuel usage, driver management, and scheduling.

1.1 OVERVIEW

Here is a brief overview of a typical vehicle management system project:

Planning:

The project starts with defining the system requirements, identifying stakeholders, and determining the budget and timeline.

Design:

The design phase involves creating a detailed plan for the system architecture, database schema, and user interface.

Development:

In this phase, developers create the system software and test it to ensure it meets the project requirements.

1.2 PURPOSE

The purpose of Vehicle Management System project can vary depending on the specific goals of the organization or individual who is implementing it. However, some common purposes of a Vehicle Management System project are:

Streamlining vehicle operations:

A Vehicle Management System can help an organization to manage their vehicles more efficiently by automating processes such as vehicle maintenance scheduling, fuel management, and vehicle tracking.
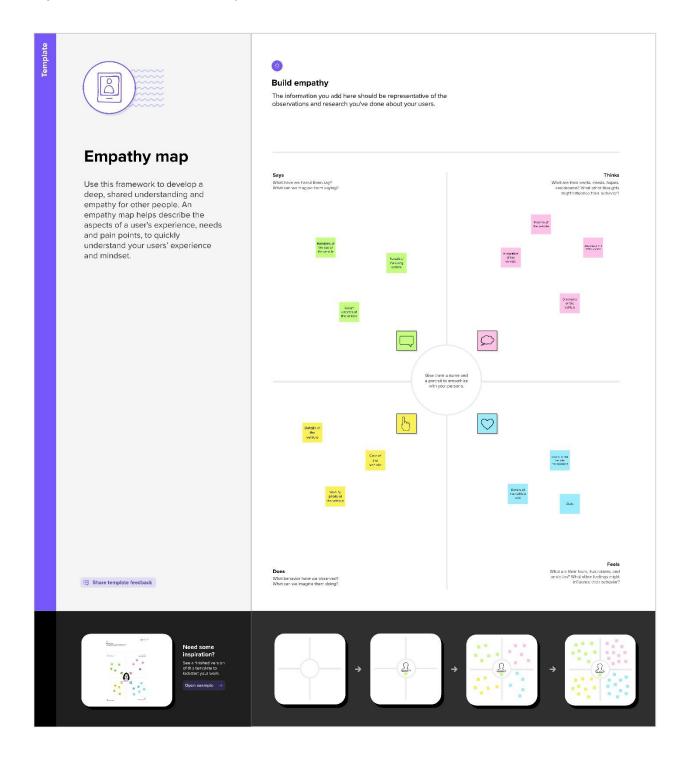
Enhancing safety and security:

Vehicle Management System can help to improve safety and security by monitoring driver behavior and vehicle performance, identifying potential safety hazards, and providing real-time alerts in case of emergencies.
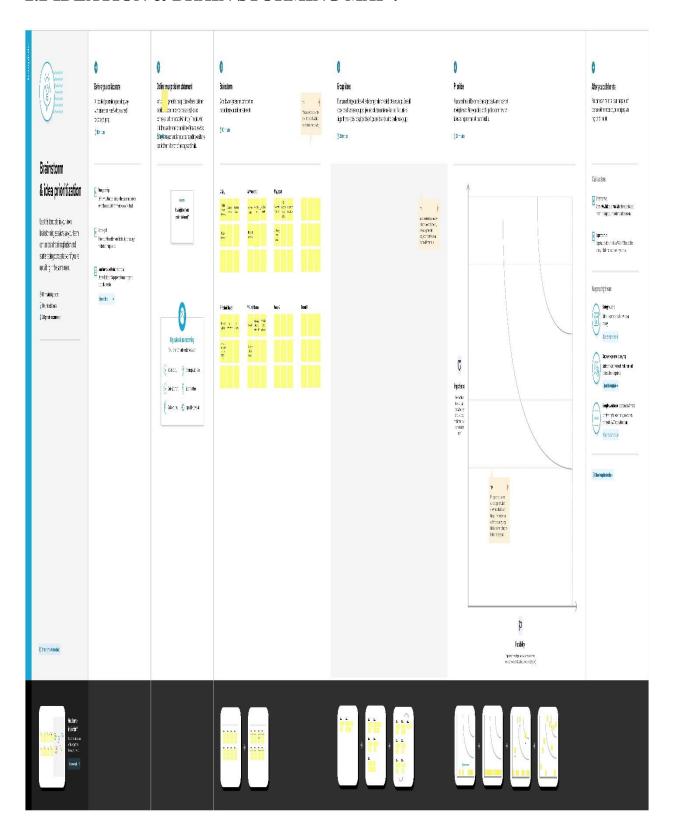
By automating vehicle maintenance scheduling and fuel management, a Vehicle Management System can help an organization to reduce costs associated with vehicle operations.

PROBLEM DEFINITION & DESIGN THINKING:

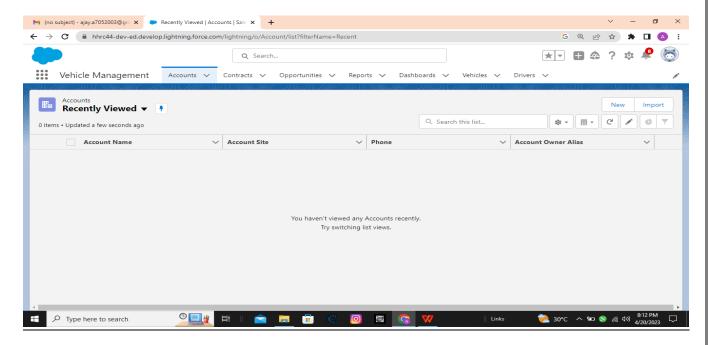## 2.1 EMPATHY MAP:

2.2 IDEATION & BRAIN STORMING MAP :

3. RESULT :

DATA MODEL:
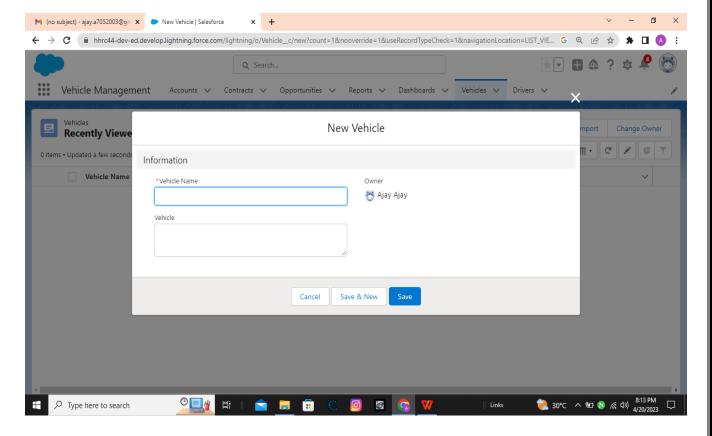
Object name	Fields in the Object
Object 1 **Vehicle**	<table><tr><td>**Field label**</td><td>**Data type**</td></tr><tr><td>Vehicle</td><td>Text</td></tr></table>
Object 2 **Driver**	<table><tr><td>**Field label**</td><td>**Data type**</td></tr><tr><td>Driver</td><td>Phone</td></tr></table>

3.2 Activity & Screenshot

Vehicle Management App

Object 1: Vehicle

A vehicle management system (VMS) is a software application that helps vehicle owners, fleet managers, and transportation companies manage and
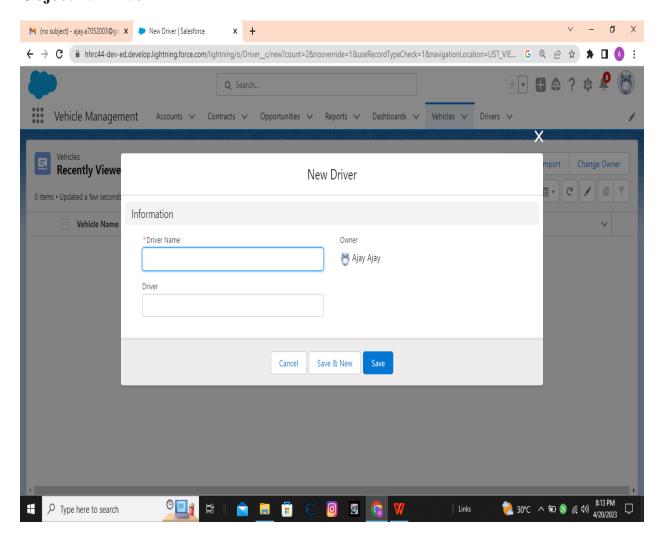
monitor their vehicles. The system can track various aspects of a vehicle's operation, including fuel consumption, maintenance schedules, driver behavior, and more.

Object 2: Driver

A vehicle management system can be a useful tool for managing a fleet of vehicles, and it can provide a lot of benefits for drivers as well. Here are some features that could be included in a vehicle management system that would be useful for drivers:

4. Trailhead Profile Public URL

Team Lead   - https://trailblazer.me/id/aajay140

Team member 1 - https://trailblazer.me/id/asathic

Team member 2 - https://trailblazer.me/id/payyappan2

Team member 3 - https://trailblazer.me/id/pbhagavathi

Team member 4- https://trailblazer.me/id/mkumar2945

5 ADVANTAGES & DISADVANTAGES

Advantages:

Vehicle Management System (VMS) is a software application that is designed to help organizations manage their fleet of vehicles. The system can be used to manage vehicles such as cars, trucks, buses, and even airplanes. Here are some advantages of implementing a Vehicle Management System project:

- ❖ **Increased Efficiency:** With a VMS, we can streamline our operations and automate many of the manual processes associated with vehicle management. This can help reduce errors, increase productivity, and make your operations more efficient.
- ❖ **Cost Savings:** VMS can help you identify areas where we can save costs, such as reducing fuel consumption, improving maintenance scheduling, and reducing vehicle downtime.
- ❖ **Improved Safety:** VMS can help you improve the safety of our drivers and passengers by monitoring driver behavior, providing real-time alerts for unsafe driving practices, and scheduling regular maintenance to ensure vehicles are in good condition.
- ❖ **Better Customer Service:** With a VMS, we can provide better customer service by tracking delivery times, providing real-time updates on vehicle locations, and responding quickly to customer inquiries.

- ❖ **Enhanced Reporting:** VMS can provide detailed reports on vehicle usage, maintenance costs, fuel consumption, and other key metrics. This data can help to make informed decisions and optimize your operations.
- ❖ **Compliance:** VMS can help you stay compliant with regulations and industry standards by tracking vehicle inspections, ensuring drivers are properly licensed, and monitoring compliance with safety regulations.

Overall, a Vehicle Management System project can help to streamline our operations, reduce costs, improve safety, and provide better customer service.

Disadvantages:

Vehicle management system (VMS) is designed to help manage the operations of a fleet of vehicles, such as cars, trucks, or buses. While VMS can provide a range of benefits, there are also some disadvantages to consider. Here are some potential drawbacks:

- ❖ **Cost:** Implementing a VMS can be expensive, especially for smaller businesses. The cost includes hardware, software, and installation, and ongoing maintenance and upgrades.
- ❖ **Complexity:** VMS can be complex and require specialized knowledge to operate. Staff members may need to be trained to use the system effectively.
- ❖ **Integration:** VMS may need to be integrated with existing systems, such as accounting or logistics, which can be challenging and time-consuming.
- ❖ **Dependence on Technology:** VMS relies heavily on technology, and any technical issues, such as server downtime or data breaches, can affect the system's reliability and security.
- ❖ **Maintenance:** Maintenance of VMS can be time-consuming, and the system may need regular updates and backups to ensure optimal performance.
- ❖ **User Resistance:**Some staff members may resist using the system, especially if they are not familiar with the technology or if they perceive it as a threat to their jobs.

Overall, while VMS can provide many benefits, it's essential to carefully consider the potential drawbacks before deciding to implement such a system.

6. APPLICATIONS

Vehicle management system (VMS) is a software application that is designed to help manage a fleet of vehicles. It can be used by businesses, organizations, or individuals to track and monitor their vehicles' activities, including maintenance schedules, fuel consumption, and driver information.

7. CONCLUSION

Vehicle Management System project involves the development of a software system that helps manage vehicles, including tracking their usage, maintenance, and repair schedules, as well as managing fuel consumption, driver information, and other related data. Such a system can be used by fleet managers, car rental companies, or any organization that needs to manage a large number of vehicles.

The success of a Vehicle Management System project depends on various factors, such as the project's scope, complexity, and the development team's expertise. However, some of the general conclusions that can be drawn from such a project are:

❖ **Effective vehicle management leads to cost savings:** By using a Vehicle Management System, organizations can track and manage their vehicles' usage, which can lead to cost savings in terms of fuel consumption, maintenance, and repair costs.

❖ **Improved safety and compliance:** Vehicle Management System can help organizations track driver information, including their driving habits and certifications, which can improve safety and ensure compliance with regulations.

❖ **Increased efficiency:** By automating manual processes, such as maintenance scheduling and fuel consumption tracking, a Vehicle Management System can increase efficiency and reduce the time and resources required to manage vehicles.

❖ **Enhanced data management:** Vehicle Management System can provide organizations with valuable data insights that can help them make informed decisions about their fleet management strategies.

In conclusion, a Vehicle Management System project can provide significant benefits to organizations that need to manage a large number of vehicles. The success of such a project depends on various factors, but the potential benefits make it a worthwhile investment for many organizations.

8. FUTURE SCOPE

The Vehicle Management System project has a lot of potential for future development and expansion. Some possible future scope for the project includes:

❖ **Integration with GPS and navigation systems:** Vehicle Management System could be integrated with GPS and navigation systems to provide real-time location tracking of vehicles. This would allow for better routing and dispatching of vehicles, and could also help in optimizing fuel consumption.

❖ **Integration with IoT devices:** IoT devices such as sensors and cameras could be integrated with the Vehicle Management System to provide more detailed information about the vehicle and its surroundings. This could include information such as tire pressure, fuel levels, and traffic conditions, which could help in optimizing vehicle performance and safety.

❖ **Driver behavior monitoring:** Vehicle Management System could be expanded to include driver behavior monitoring, which would allow for better monitoring of driver performance and safety. This could include monitoring for speeding, aggressive driving, and distracted driving, among other things.

❖ **Predictive maintenance:** Vehicle Management System could be expanded to include predictive maintenance capabilities, which would allow for early detection of potential vehicle issues. This could include monitoring for engine performance, tire wear, and battery life, among other things.

❖ **Fleet management:** Vehicle Management System could be expanded to include fleet management capabilities, which would allow for better tracking and management of multiple vehicles. This could include features such as vehicle scheduling, maintenance tracking, and fuel management.