

# **WhatsNext Vision Motors – Salesforce CRM Project Documentation**

## **Project Overview**

WhatsNext Vision Motors is a forward-thinking automotive company focused on delivering seamless customer experiences through digital innovation. To support its mission, a Salesforce CRM solution was developed to improve customer engagement, optimize dealer assignments, automate order management, and ensure real-time stock tracking. The CRM centralizes vehicle data, customer profiles, test drive bookings, orders, and service requests while automating dealer assignment and stock validation to ensure a smooth and error-free purchasing journey. This system enhances operational efficiency, reduces manual work, and significantly improves customer satisfaction.

## **Objectives**

The primary goal of this CRM implementation is to streamline the vehicle purchasing and service process by creating a fully automated, accurate, and customer-friendly system. The CRM ensures better customer management, faster dealer assignment, simplified booking workflows, and real-time updates for stock availability. By automating repetitive tasks, enforcing business rules, improving communication, and enhancing transparency, the system delivers strong business value—resulting in higher productivity and improved customer trust.

# **Phase 1: Requirement Analysis & Planning**

## **Understanding Business Requirements**

The core business needs identified include:

- Assigning customers to the nearest dealer automatically.
- Preventing orders when vehicles are out of stock.
- Tracking vehicles, test drives, customers, orders, dealers, and service requests in a structured system.
- Sending automated reminders for scheduled test drives.
- Keeping order statuses accurate through scheduled and batch processing.
- Providing admins with dashboards and reports for business insights.

## **Defining Project Scope and Objectives**

Scope includes:

- Creation of 6 custom objects with defined relationships.
- Automation using Flows, Apex Triggers, Batch Apex, and Scheduled Apex.
- Implementation of validation rules and stock-check mechanisms.
- Development of Lightning App for navigation of modules.
- User management and security configuration.
- Testing and deployment activities.

## **Data Model & Security Model**

**Data Model Includes:**

- **Vehicle\_c** → stores vehicle data.
- **Vehicle\_Dealer\_c** → stores authorized dealer information.
- **Vehicle\_Customer\_c** → stores customer profiles.
- **Vehicle\_Order\_c** → handles purchase orders.
- **Vehicle\_Test\_Drive\_c** → manages test drives.
- **Vehicle\_Service\_Request\_c** → records servicing requests.

## **Security Model Includes:**

- Profiles, Role Hierarchy, Permission Sets.
- Sharing settings for object-level and record-level access.
- Field history tracking for critical fields like Stock, Status, Email.

## **Stakeholder Mapping**

- **System Admin:** Manages entire CRM, objects, and automations.
- **Sales Staff:** Uses the CRM to create orders and track customers.
- **Dealers:** Receives assigned orders and manages vehicle delivery.
- **Customers:** Indirect stakeholders benefiting from efficient service.

## **Execution Roadmap**

1. Data Modeling → Object creation
2. Backend Automation → Triggers, batch jobs
3. UI Development → Lightning App, Page Layouts
4. Testing → Unit tests, flow tests, process validation

5. Deployment → Change Set deployment

6. Documentation & Maintenance

# **Phase 2: Salesforce Development – Backend & Configurations**

## **Environment Setup & DevOps Workflow**

- Configured a dedicated Salesforce Developer Org to safely create and test custom objects, fields, flows, and Apex components.
- Managed all changes systematically using Change Sets to ensure controlled deployment between environments.
- Utilized the Developer Console for efficient writing, debugging, and testing of Apex classes and triggers.
- Established a streamlined DevOps workflow, supporting version control, conflict prevention, and structured testing and deployment.

## **Customization of Objects, Fields, Validation Rules**

### **Custom Objects Created:**

- Vehicle\_\_c
- Vehicle\_Dealer\_\_c
- Vehicle\_Customer\_\_c
- Vehicle\_Order\_\_c
- Vehicle\_Test\_Drive\_\_c
- Vehicle\_Service\_Request\_\_c

Each object contains key fields such as:

- Stock\_Quantity\_\_c
- Status\_\_c

- Dealer\_Location\_\_c
- Preferred\_Vehicle\_Type\_\_c
- Order\_Date\_\_c
- Test\_Drive\_Date\_\_c

Screenshot of the Salesforce Object Manager interface showing a list of custom objects.

The URL in the browser is: orgfarm-006b06c547-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/home

The page title is: Object Manager | Salesforce

The search bar contains: vehicle

The table displays the following data:

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Vehicle	Vehicle__c	Custom Object		11/20/2025	✓
Vehicle Customer	Vehicle_Customer__c	Custom Object		11/20/2025	✓
Vehicle Dealer	Vehicle_Dealer__c	Custom Object		11/20/2025	✓
Vehicle Order	Vehicle_Order__c	Custom Object		11/20/2025	✓
Vehicle Service Request	Vehicle_Service_Request__c	Custom Object		11/20/2025	✓
Vehicle Test Drive	Vehicle_Test_Drive__c	Custom Object		11/20/2025	✓

Vehicle Test Drive | Salesforce

orgfarm-006b06c647-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/01gK000003HSD/FieldsAndRelationships/view

Setup Home Object Manager

SETUP > OBJECT MANAGER

## Vehicle Test Drive

Details Fields & Relationships

**Fields & Relationships** 8 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		
Status	Status__c	Picklist		
Test Drive Date	Test_Drive_Date__c	Date		
Vehicle	Vehicle__c	Lookup(Vehicle)		
Vehicle Customer	Vehicle_Customer__c	Lookup(Vehicle Customer)		
Vehicle Test Drive Name	Name	Text(80)		

Vehicle Service Request | Salesforce

orgfarm-006b06c647-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/01gK000003HIVR/FieldsAndRelationships/view

Setup Home Object Manager

SETUP > OBJECT MANAGER

## Vehicle Service Request

Details Fields & Relationships

**Fields & Relationships** 9 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Issue Description	Issue_Description__c	Text(60)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		
Service Date	Service_Date__c	Date		
Status	Status__c	Picklist		
Vehicle	Vehicle__c	Lookup(Vehicle)		
Vehicle Customer	Vehicle_Customer__c	Lookup(Vehicle Customer)		
Vehicle Service Request Name	Name	Text(80)		

Fields & Relationships					
9 Items, Sorted by Field Label		FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Assigned Dealer	Assigned_Dealer__c	Lookup(Vehicle Dealer)			✓
Created By	CreatedById	Lookup(User)			
Last Modified By	LastModifiedById	Lookup(User)			
Order Date	Order_Date__c	Date			
Owner	OwnerId	Lookup(User,Group)			✓
Status	Status__c	Picklist			
Vehicle	Vehicle__c	Lookup(Vehicle)			✓
Vehicle Customer	Vehicle_Customer__c	Lookup(Vehicle Customer)			✓
Vehicle Order Name	Name	Text(80)			✓

Fields & Relationships					
8 Items, Sorted by Field Label		FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)			
Dealer Code	Dealer_Code__c	Auto Number			
Dealer Location	Dealer_Location__c	Text(60)			
Email	Email__c	Email			
Last Modified By	LastModifiedById	Lookup(User)			
Owner	OwnerId	Lookup(User,Group)			✓
Phone	Phone__c	Phone			
Vehicle Dealer Name	Name	Text(80)			✓

Vehicle Customer | Salesforce

orgfarm-006b06c647-dev-ed.my.salesforce-setup.com/lightning/setup/ObjectManager/01gK000003HIC5/FieldsAndRelationships/view

Setup Home Object Manager

SETUP > OBJECT MANAGER  
Vehicle Customer

Details Fields & Relationships

Page Layouts Lightning Record Pages Buttons, Links, and Actions Compact Layouts Field Sets Object Limits Record Types Related Lookup Filters Search Layouts List View Button Layout Restriction Rules Scoping Rules Object Access Triggers Flow Triggers Validation Rules

**Fields & Relationships**  
8 items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address__c	Text(60)		
Created By	CreatedById	Lookup(User)		
Email	Email__c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone	Phone__c	Phone		
Preferred Vehicle Type	Preferred_Vehicle_Type__c	Picklist		
Vehicle Customer Name	Name	Text(80)		✓

Vehicle | Salesforce

orgfarm-006b06c647-dev-ed.my.salesforce-setup.com/lightning/setup/ObjectManager/01gK000003HttpV/FieldsAndRelationships/view

Setup Home Object Manager

SETUP > OBJECT MANAGER  
Vehicle

Details Fields & Relationships

Page Layouts Lightning Record Pages Buttons, Links, and Actions Compact Layouts Field Sets Object Limits Record Types Related Lookup Filters Search Layouts List View Button Layout Restriction Rules Scoping Rules Object Access Triggers Flow Triggers Validation Rules

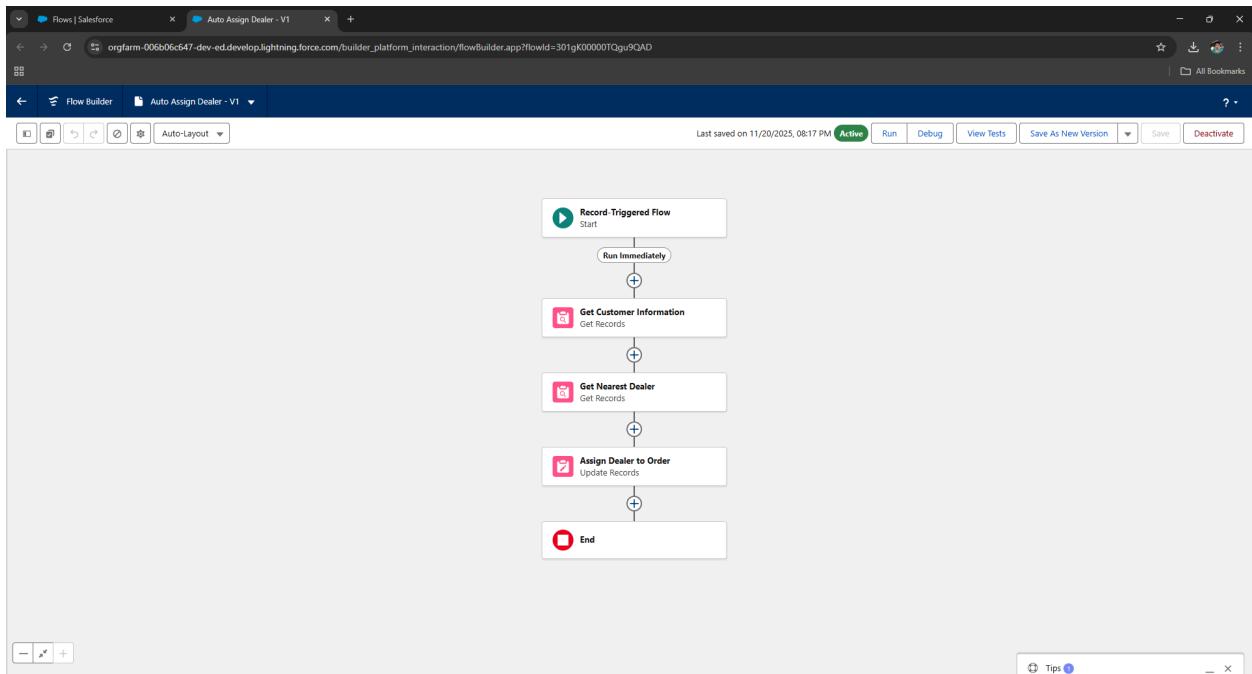
**Fields & Relationships**  
9 items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Price	Price__c	Currency(18, 0)		
Status	Status__c	Picklist		
Stock Quantity	Stock_Quantity__c	Number(18, 0)		
Vehicle Dealer	Vehicle_Dealer__c	Lookup(Vehicle Dealer)		✓
Vehicle Model	Vehicle_Model__c	Picklist		
Vehicle Name	Name	Text(80)		✓

# Automation

## Record-Triggered Flows:

1. The Auto-Assign Nearest Dealer flow is a key automation designed to improve customer convenience and operational efficiency. This record-triggered flow runs automatically whenever a new Vehicle Order is created with the status set to *Pending*. The flow first retrieves the customer's address from the associated Vehicle Customer record. Using this address, it searches the Vehicle Dealer records to find the dealer whose location matches or is nearest to the customer. Once the appropriate dealer is identified, the flow automatically updates the order record to assign that dealer. This automation eliminates manual assignment, ensures customers are connected with the most convenient dealer, reduces errors, and speeds up the order fulfillment process, ultimately enhancing the overall customer experience.



Order 1 | Vehicle Order | Sales

orgfarm-006b06c647-dev-ed.develop.lightning.force.com/lightning/r/Vehicle\_Order\_\_c/a03gK00000HYGmvQAH/view

WhatNext Vision Motors

Vehicle Customers ▾ Vehicle Dealers ▾ **Vehicle Orders** ▾ Vehicle Service Requests ▾ Vehicle Test Drives ▾ Vehicles ▾ Reports ▾ Dashboards ▾

Vehicle Order  
**Order 1**

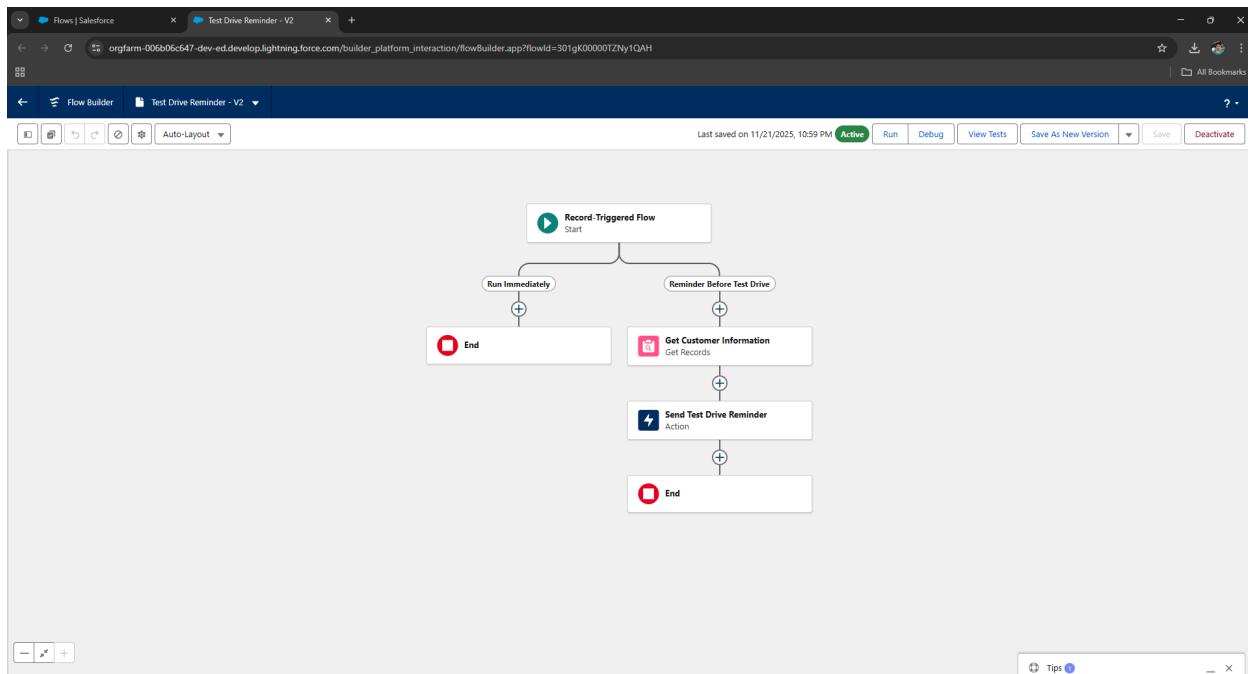
New Contact Edit New Opportunity

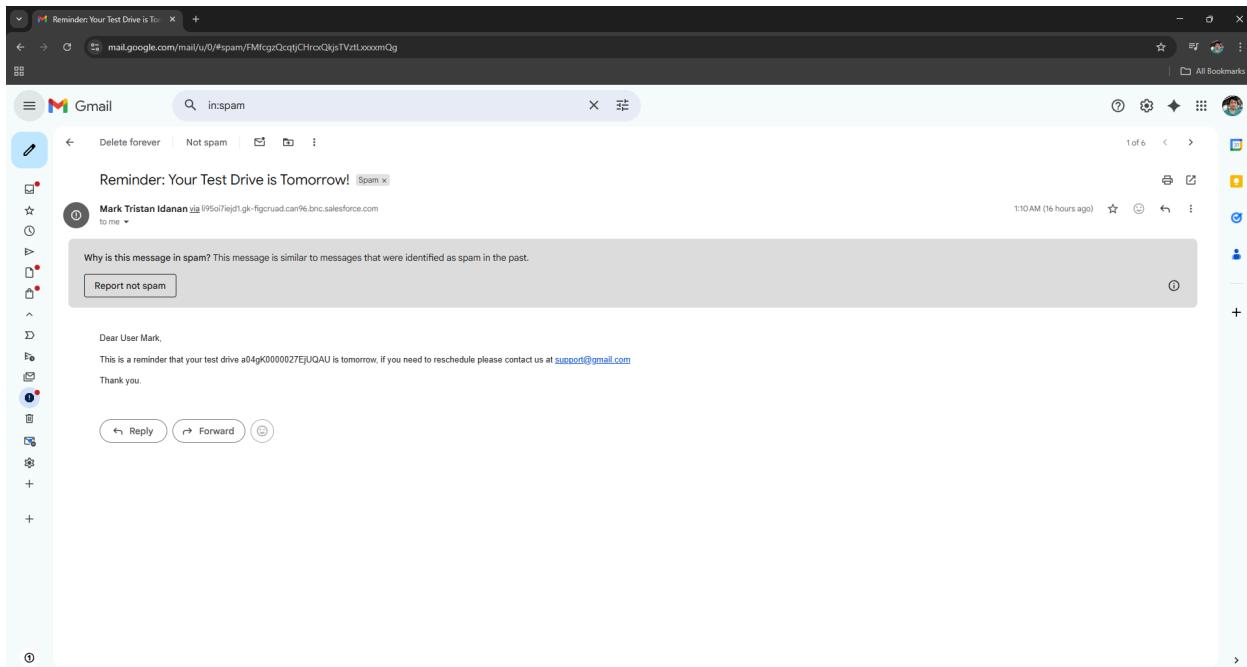
Related Details

Vehicle Order Name	Order 1	Owner	Mark Tristan Idenan
Vehicle Customer	Mark	Last Modified By	Mark Tristan Idenan
Vehicle	Suzuki	Created By	Mark Tristan Idenan
Order Date	11/25/2025	Created On	11/24/2025, 9:04 AM
Status	Pending	Modified On	11/24/2025, 9:04 AM
Assigned Dealer	Tristan	Modified By	Mark Tristan Idenan
Created By	Mark Tristan Idenan	Created On	11/24/2025, 9:04 AM

## 2. Test Drive Email Reminder

- The Test Drive Reminder flow is designed to enhance customer engagement and reduce missed appointments. This record-triggered flow runs when a Vehicle Test Drive record is created or updated with the status set to *Scheduled*. A scheduled path is configured to trigger 1 day before the test drive date, ensuring timely notifications. The flow first retrieves the customer's email address from the associated Vehicle Customer record. It then sends an automated email reminder to the customer, notifying them of their upcoming test drive. This automation improves customer communication, reduces the risk of no-shows, and enhances the overall service experience without requiring manual intervention from staff.



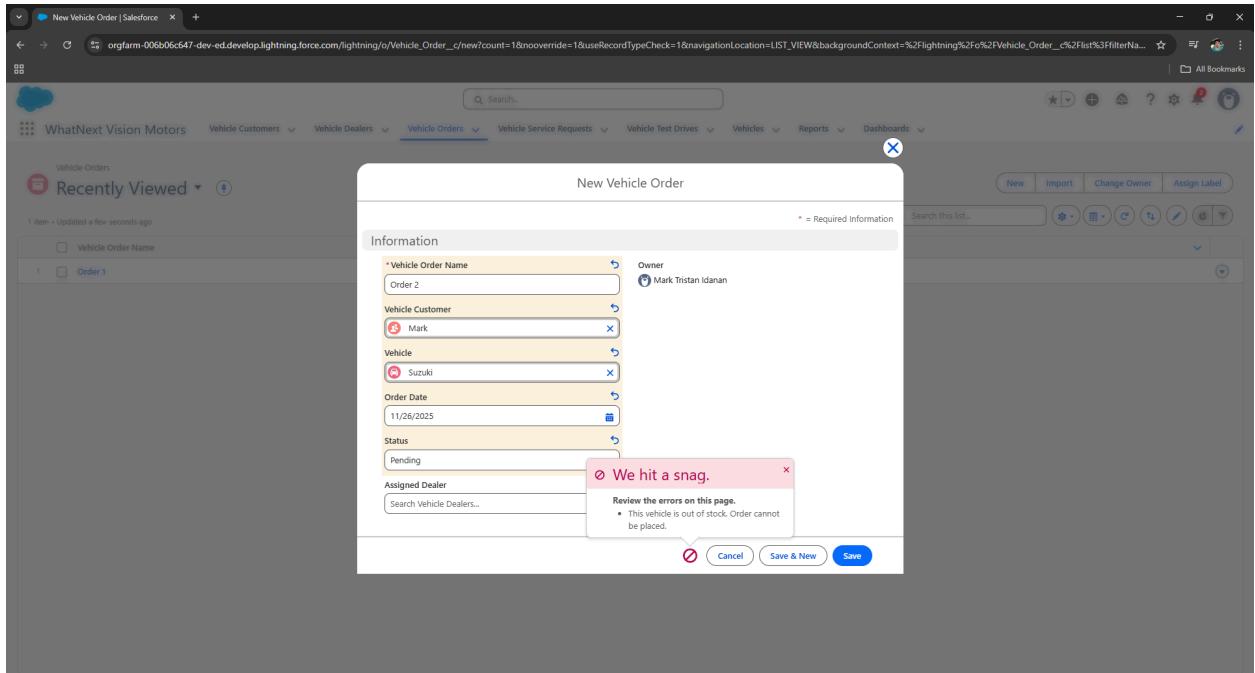


## Apex Classes & Triggers

### Apex Trigger Handler

Handles:

- Preventing orders if vehicle is out of stock.
- Reducing vehicle stock when order is confirmed.



## Trigger

Called on before/after insert & update on Vehicle\_Order\_\_c.

## Asynchronous Apex

### Batch Apex

- Checks all pending orders.
- If vehicle stock is replenished, updates order to Confirmed.
- Reduces stock automatically.

### Scheduled Apex

- Schedules batch to run daily at specific time.

The screenshot shows the Salesforce Developer Console with the URL [https://orgfarm-006b06c547-dev-ed.develop.my.salesforce.com/\\_ui/common/apex/debug/ApexCSIPage](https://orgfarm-006b06c547-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage). The code editor displays the `VehicleOrderTriggerHandler` class:

```
1  /* package class; */
2  public static void handleTrigger(List<Vehicle_Order__c> newOrders, Map<Id, Vehicle_Order__c> oldOrders, Boolean isBefore, Boolean isAfter, Boolean isInsert, Boolean isUpdate) {
3      if (isBefore && (isInsert || isUpdate)) {
4          preventOrderFromStock(newOrders);
5      }
6
7      if (isAfter && isInsert) {
8          updateStockOnOrderPlacement(newOrders);
9      }
10 }
11
12 private static void preventOrderFromStock(List<Vehicle_Order__c> orders) {
13     Set<Vehicle__c> vehicles = new Set<Vehicle__c>();
14     for (Vehicle_Order__c order : orders) {
15         if (order.Vehicle__c != null) {
16             if (order.Vehicle__c >= null) {
17                 vehicleStockMap.put(order.Vehicle__c, 0);
18             }
19         }
20     }
21
22     if (!vehicleStockMap.isEmpty()) {
23         Map<Id, Vehicle__c> vehicleStockMap = new Map<Id, Vehicle__c>();
24         [SELECT Id, Stock_Quantity__c FROM Vehicle__c WHERE Id IN :vehicleStock];
25     }
26
27     for (Vehicle_Order__c order : orders) {
28         Vehicle__c vehicle = vehicleStockMap.get(order.Vehicle__c);
29         if (vehicle != null && vehicle.Stock_Quantity__c < 0) {
30             order.addError('This vehicle is out of stock. Order cannot be placed.');
31         }
32     }
33 }
34
35 private static void updateStockOnOrderPlacement(List<Vehicle_Order__c> orders) {
36     Set<Vehicle__c> vehicles = new Set<Vehicle__c>();
37     for (Vehicle_Order__c order : orders) {
38         if (order.Vehicle__c != null && order.Status__c == 'Confirmed') {
39             vehicleStockMap.put(order.Vehicle__c, 0);
40         }
41     }
42
43     if (!vehicleStockMap.isEmpty()) {
44         Map<Id, Vehicle__c> vehicleStockMap = new Map<Id, Vehicle__c>();
45         [SELECT Id, Stock_Quantity__c FROM Vehicle__c WHERE Id IN :vehicleStock];
46     }
47
48     for (Vehicle_Order__c order : orders) {
49         Vehicle__c vehicle = vehicleStockMap.get(order.Vehicle__c);
50         if (vehicle != null && vehicle.Stock_Quantity__c > 0) {
51             if (vehicle.Stock_Quantity__c > 0) {
52                 vehicleStockMap.put(order.Vehicle__c, vehicle.Stock_Quantity__c - 1);
53             }
54         }
55     }
56
57     if (!vehicleStockMap.isEmpty()) {
58         updateVehicleStock();
59     }
60 }
61
62 }
```

The screenshot shows the Salesforce Developer Console with the URL [https://orgfarm-006b06c547-dev-ed.develop.my.salesforce.com/\\_ui/common/apex/debug/ApexCSIPage](https://orgfarm-006b06c547-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage). The code editor displays the `VehicleOrderTrigger.apot` file:

```
1 trigger VehicleOrderTrigger on Vehicle_Order__c (before insert, before update, after insert, after update) {
2     VehicleOrderTriggerHandler.handleTrigger(Trigger.new, Trigger.oldMap, Trigger.isBefore, Trigger.isAfter, Trigger.isInsert, Trigger.isUpdate);
3 }
```

The bottom of the screen shows the Logs tab with a log entry:

User	Application	Operation	Time	Status	Read	Size
Click here to filter the log list						

Developer Console

File Edit Debug Test Workspace Help < >

VehicleOrderTriggerHandler.apex | VehicleOrderBatchScheduler.apex | VehicleOrderTrigger.apex

Code Coverage: None API Version: 45 Go To

```
1 * global class VehicleOrderBatchScheduler implements Schedulable {
2 *     global void execute(SchedulableContext sc) {
3         VehicleOrderBatch batchJob = new VehicleOrderBatch();
4         Database.executeBatch(batchJob, 50); // 50 = batch size
5     }
6 }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

User Application Operation Time Status Read Size

Filter Click here to filter the log list

Developer Console

File Edit Debug Test Workspace Help < >

VehicleOrderTriggerHandler.apex | VehicleOrderBatchScheduler.apex | VehicleOrderTrigger.apex

Code Coverage: None API Version: 45 Go To

```
1 * global class VehicleOrderBatch implements Database.Batchable<sObject> {
2 *     global Database.QueryLocator start(Database.BatchableContext bc) {
3 *         return Database.getQueryLocator([
4 *             'SELECT Id, Status__c, Vehicle__c FROM Vehicle_Order__c WHERE Status__c = \'Pending\''
5 *         ]);
6 *     }
7 *
8 *     global void execute(Database.BatchableContext bc, List<Vehicle_Order__c> orderList) {
9 *         Set<Id> vehicleIds = new Set<Id>();
10 *         for (Vehicle_Order__c order : orderList) {
11 *             if (order.Vehicle__c != null) {
12 *                 vehicleIds.add(order.Vehicle__c);
13 *             }
14 *         }
15 *
16 *         if (!vehicleIds.isEmpty()) {
17 *             Map<Id, Vehicle__c> vehicleStockMap = new Map<Id, Vehicle__c>(
18 *                 [SELECT Id, Stock_Quantity__c FROM Vehicle__c WHERE Id IN :vehicleIds]
19 *             );
20 *
21 *             List<Vehicle_Order__c> ordersToUpdate = new List<Vehicle_Order__c>();
22 *             List<Vehicle__c> vehiclesToUpdate = new List<Vehicle__c>();
23 *
24 *             for (Vehicle_Order__c order : orderList) {
25 *                 Vehicle__c vehicle = vehicleStockMap.get(order.Vehicle__c);
26 *                 if (vehicle != null && vehicle.Stock_Quantity__c > 0) {
27 *                     if (order.Status__c == 'Confirmed') {
28 *                         vehicle.Stock_Quantity__c -= 1;
29 *                         order.Status__c = 'Invoiced';
30 *                         ordersToUpdate.add(order);
31 *                         vehiclesToUpdate.add(vehicle);
32 *                     }
33 *                 }
34 *             }
35 *             if (!ordersToUpdate.isEmpty()) update ordersToUpdate;
36 *             if (!vehiclesToUpdate.isEmpty()) update vehiclesToUpdate;
37 *         }
38 *     }
39 *
40 *     global void finish(Database.BatchableContext bc) {
41 *         System.debug('Vehicle order batch job completed.');
42 *     }
43 }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

User Application Operation Time Status Read Size

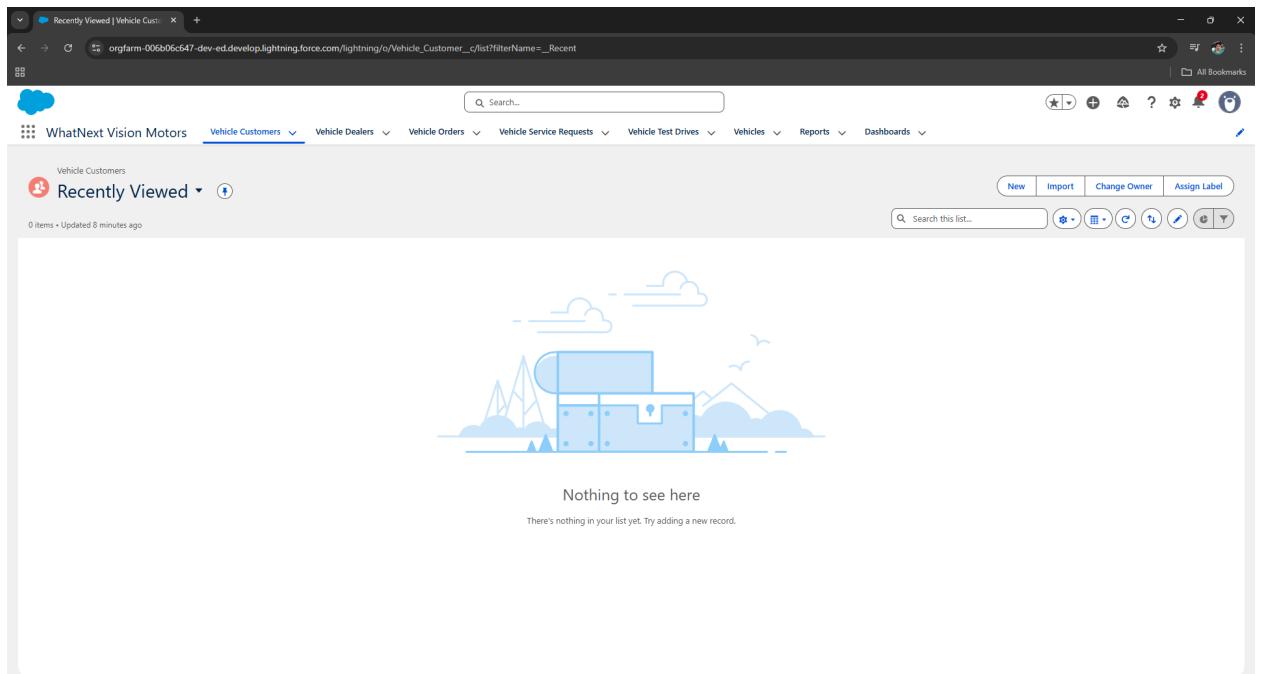
Filter Click here to filter the log list

# Phase 3: UI/UX Development & Customization

## Lightning App Setup

Created “**WhatsNext Vision Motors**” App:

- Navigation Items: Vehicles, Vehicle Dealers, Vehicle Customers, Vehicle Orders, Vehicle Test Drives, Vehicle Service Request, Reports, Dashboards



## Page Layouts & Dynamic Forms

- Customized layouts for each object.
- Displayed fields based on user roles.
- Conditional visibility applied where required.

## User Management

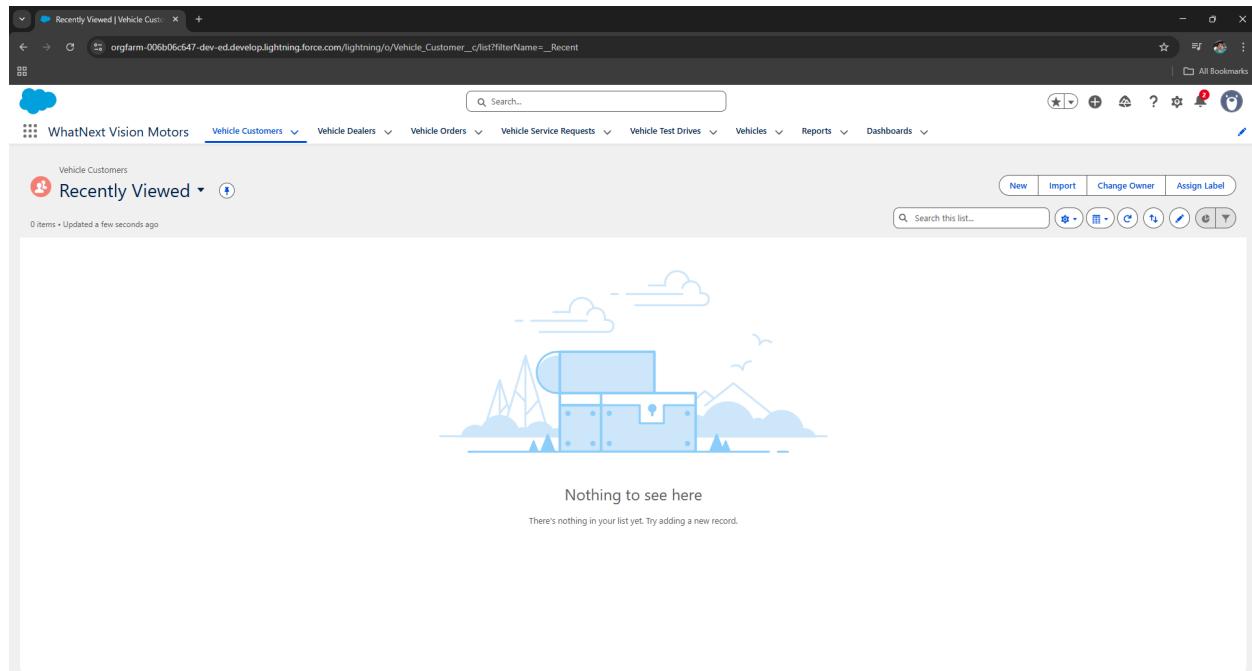
- Assigned profiles (System Administrator).
- Configured app access for users.

## Reports and Dashboards

- Vehicle Stock Report
- Dealer Assignment Report
- Test Drive Summary

## Lightning Pages

- Custom record pages for Vehicle, Dealer, Customer.
- Related lists and quick actions added.



Recently Viewed | Vehicle Dealers

orgfarm-006b06c647-dev-ed.develop.lightning.force.com/lightning/o/Vehicle\_Dealer\_\_c/list?filterName=\_Recent

WhatNext Vision Motors

Vehicle Customers ▾ Vehicle Dealers ▾ **Vehicle Orders** ▾ Vehicle Service Requests ▾ Vehicle Test Drives ▾ Vehicles ▾ Reports ▾ Dashboards ▾

Vehicle Dealers

Recently Viewed ⓘ

0 items • Updated a few seconds ago



Nothing to see here

There's nothing in your list yet. Try adding a new record.

New Import Change Owner Assign Label

Recently Viewed | Vehicle Orders

orgfarm-006b06c647-dev-ed.develop.lightning.force.com/lightning/o/Vehicle\_Order\_\_c/list?filterName=\_Recent

WhatNext Vision Motors

Vehicle Customers ▾ Vehicle Dealers ▾ **Vehicle Orders** ▾ **Vehicle Service Requests** ▾ Vehicle Test Drives ▾ Vehicles ▾ Reports ▾ Dashboards ▾

Vehicle Orders

Recently Viewed ⓘ

0 items • Updated a few seconds ago



Nothing to see here

There's nothing in your list yet. Try adding a new record.

New Import Change Owner Assign Label

Recently Viewed | Vehicle Service Requests

orgfarm-006b06c647-dev-ed.lightning.force.com/lightning/o/Vehicle\_Service\_Request\_\_c/list?filterName=\_Recent

WhatNext Vision Motors

Vehicle Customers ▾ Vehicle Dealers ▾ Vehicle Orders ▾ Vehicle Service Requests ▾ Vehicle Test Drives ▾ Vehicles ▾ Reports ▾ Dashboards ▾

Vehicle Service Requests

Recently Viewed ▾

0 items • Updated a few seconds ago

Nothing to see here

There's nothing in your list yet. Try adding a new record.

Recently Viewed | Vehicle Test Drives

orgfarm-006b06c647-dev-ed.lightning.force.com/lightning/o/Vehicle\_Test\_Drive\_\_c/list?filterName=\_Recent

WhatNext Vision Motors

Vehicle Customers ▾ Vehicle Dealers ▾ Vehicle Orders ▾ Vehicle Service Requests ▾ Vehicle Test Drives ▾ Vehicles ▾ Reports ▾ Dashboards ▾

Vehicle Test Drives

Recently Viewed ▾

0 items • Updated a few seconds ago

Nothing to see here

There's nothing in your list yet. Try adding a new record.

Recently Viewed | Vehicles | Search

orgfarm-006b06c547-dev-ed.lightning.force.com/lightning/o/Vehicle\_\_c/list?filterName=\_Recent

WhatNext Vision Motors

Vehicles Customers Vehicle Dealers Vehicle Orders Vehicle Service Requests Vehicle Test Drives Vehicles Reports Dashboards

Recently Viewed

0 items • Updated a few seconds ago

Nothing to see here

There's nothing in your list yet. Try adding a new record.

Recent | Reports | Salesforce

orgfarm-006b06c647-dev-ed.develop.lightning.force.com/lightning/o/Report/home?queryScope=mrn

WhatNext Vision Motors

Vehicle Customers Vehicle Dealers Vehicle Orders Vehicle Service Requests Vehicle Test Drives Vehicles Reports Dashboards

Reports

Recent 0 items

REPORTS

Recent

Created by Me

Private Reports

Public Reports

All Reports

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

All Favorites

Search...

New Report New Folder  



Recent reports appear here  
Go to All Reports to see what's available.  
[View All Reports](#)

Recent | Dashboards | Salesforce

orgfarm-006b06c647-dev-ed.develop.lightning.force.com/lightning/o/Dashboard/home?queryScope=mrn

WhatNext Vision Motors

Vehicle Customers Vehicle Dealers Vehicle Orders Vehicle Service Requests Vehicle Test Drives Vehicles Reports Dashboards

Dashboards

Recent 0 items

DASHBOARDS

Recent

Created by Me

Private Dashboards

All Dashboards

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

All Favorites

Search...

New Dashboard New Folder  



Recent dashboards appear here  
Go to All Dashboards to see what's available.  
[View All Dashboards](#)

# Phase 4: Data Migration, Testing & Security

## Data Loading Process

- Sample customer, dealer, and vehicle records were added to support testing. In this project, records were created manually through the Salesforce interface, though Salesforce also provides tools such as the Data Import Wizard and Data Loader for importing larger datasets if needed. These tools allow for guided uploads and bulk data entry without writing code.

## Security Configurations

- The security model was configured to ensure proper data access across the organization. Profiles were set up to control CRUD permissions for each object, while the role hierarchy ensured that managers could automatically view dealer and customer records beneath them. Permission Sets were used to grant additional access to features such as test-drive reminders and reporting tools. Finally, Sharing Rules were implemented to provide controlled visibility for sales teams, ensuring they can only access the data relevant to their responsibilities.

## Field History Tracking

Enabled for:

- Stock\_Quantity\_\_c
- Status\_\_c
- Order\_Date\_\_c

## Testing Process

### Flow Tests

- Flow tests were conducted to ensure all automations performed correctly. The dealer assignment flow was validated using before-and-after screenshots, and the test drive reminder flow was confirmed to work by adjusting the test drive dates. Trigger functionality was also verified: when a user attempted to order an out-of-stock vehicle, the correct error message appeared, and when an order was marked as *Confirmed*, the system automatically reduced the vehicle's stock. Batch

Apex behavior was tested as well, confirming that pending orders were successfully auto-confirmed once the stock was updated.

The image displays two side-by-side screenshots of the WhatNext Vision Motors Salesforce Lightning interface, illustrating the integration of Apex logic into the user interface.

**Screenshot 1: Vehicle Customer Details**

This screenshot shows the "Vehicle Customer" record for "Mark". The details include:

- Vehicle Customer Name: Mark
- Email: mtnstanidan@gmail.com
- Phone: (123) 456-7890
- Address: Batangas
- Preferred Vehicle Type: Sedan
- Created By: Mark Tristan idanan, 11/24/2025, 9:01 AM
- Owner: Mark Tristan idanan
- Last Modified By: Mark Tristan idanan, 11/24/2025, 9:01 AM

**Screenshot 2: Vehicle Dealer Details**

This screenshot shows the "Vehicle Dealer" record for "Tristan". The details include:

- Vehicle Dealer Name: Tristan
- Dealer Location: Batangas
- Dealer Code: DC-0005
- Phone: (123) 456-7890
- Email: tristan@gmail.com
- Created By: Mark Tristan idanan, 11/24/2025, 9:02 AM
- Owner: Mark Tristan idanan
- Last Modified By: Mark Tristan idanan, 11/24/2025, 9:02 AM

Idanan | Vehicle Dealer | Sales... +

orgfarm-006b06c647-dev-ed.develop.lightning.force.com/lightning/r/Vehicle\_Dealer\_c/a01gK00000fpa+8QAR/view

WhatNext Vision Motors

Vehicle Customers ▾ Vehicle Dealers ▾ Vehicle Orders ▾ Vehicle Service Requests ▾ Vehicle Test Drives ▾ Vehicles ▾ Reports ▾ Dashboards ▾

Vehicle Dealer

Idanan

New Contact Edit New Opportunity

Related Details

Vehicle Dealer Name: Idanan

Dealer Location: Talsay

Dealer Code: DC-0006

Phone: (123) 456-7890

Email: idanan@gmail.com

Created By: Mark Tristan idanan, 11/24/2025, 9:02 AM

Owner: Mark Tristan idanan

Last Modified By: Mark Tristan idanan, 11/24/2025, 9:02 AM

Request 1 | Vehicle Service Request +

orgfarm-006b06c647-dev-ed.develop.lightning.force.com/lightning/r/Vehicle\_Service\_Request\_c/a05gK00000fIIGIQA/view

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Vehicle Service Request

Request 1

New Contact Edit New Opportunity

Related Details

Vehicle Service Request Name: Request 1

Vehicle Customer: Mark

Vehicle: Suzuki

Service Date: 11/25/2025

Issue Description: Test

Status: Requested

Created By: Mark Tristan idanan, 11/24/2025, 9:05 AM

Owner: Mark Tristan idanan

Last Modified By: Mark Tristan idanan, 11/24/2025, 9:05 AM

Reminder 1 | Vehicle Test Drive

orgfarm-006b06c647-dev-ed.lightning.force.com/lightning/r/Vehicle\_Test\_Drive\_c/a04gK0000027EjUQAU/view

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Vehicle Test Drive

Reminder 1

Related Details

Vehicle Test Drive Name  
Reminder 1

Vehicle Customer  
[Mark](#)

Vehicle  
[Suzuki](#)

Test Drive Date  
11/25/2025

Status  
Scheduled

Created By  
[Mark Tristan idanan](#), 11/24/2025, 9:09 AM

Owner  
[Mark Tristan idanan](#)

Last Modified By  
[Mark Tristan idanan](#), 11/24/2025, 9:09 AM

New Contact Edit New Opportunity

Suzuki | Vehicle | Salesforce

orgfarm-006b06c647-dev-ed.lightning.force.com/lightning/r/Vehicle\_c/a00gK00000TPYFWQ45/view

WhatNext Vision Motors

Vehicle Customers ▾ Vehicle Dealers ▾ Vehicle Orders ▾ Vehicle Service Requests ▾ Vehicle Test Drives ▾ Vehicles ▾ Reports ▾ Dashboards ▾

Vehicle

Suzuki

Related Details

Vehicle Name  
Suzuki

Vehicle Model  
Sedan

Stock Quantity  
97

Price  
\$800.000

Vehicle Dealer

Status  
Available

Created By  
[Mark Tristan idanan](#), 11/24/2025, 9:01 AM

Owner  
[Mark Tristan idanan](#)

Last Modified By  
[Mark Tristan idanan](#), 11/25/2025, 2:06 AM

New Contact Edit New Opportunity

Order 1 | Vehicle Order | Sales... +

orgfarm-006b06c647-dev-ed.lightning.force.com/lightning/r/Vehicle\_Order\_\_c/a03gK00000HYGmvQAH/view

WhatNext Vision Motors

Vehicle Customers ▾ Vehicle Dealers ▾ **Vehicle Orders** ▾ Vehicle Service Requests ▾ Vehicle Test Drives ▾ Vehicles ▾ Reports ▾ Dashboards ▾

Vehicle Order  
**Order 1**

Related Details

Vehicle Order Name  
Order 1

Vehicle Customer  
[Mark](#)

Vehicle  
[Suzuki](#)

Order Date  
11/25/2025

Status  
Pending

Assigned Dealer  
[Tristan](#)

Created By  
[Mark Tristan Idanan](#), 11/24/2025, 9:04 AM

Last Modified By  
[Mark Tristan idanan](#), 11/24/2025, 9:04 AM

New Contact Edit New Opportunity

Reminder: Your Test Drive is To... +

mail.google.com/mail/u/0/#spam/FMfcgZQcqjCHrcxQjsTVztLxxxxmQq

Gmail in:spam

Reminder: Your Test Drive is Tomorrow! [Spam](#)

Mark Tristan Idanan [l95o7iejd1glk-flgrcud.ca96.bnc.salesforce.com](#) to me 1:10 AM (16 hours ago)

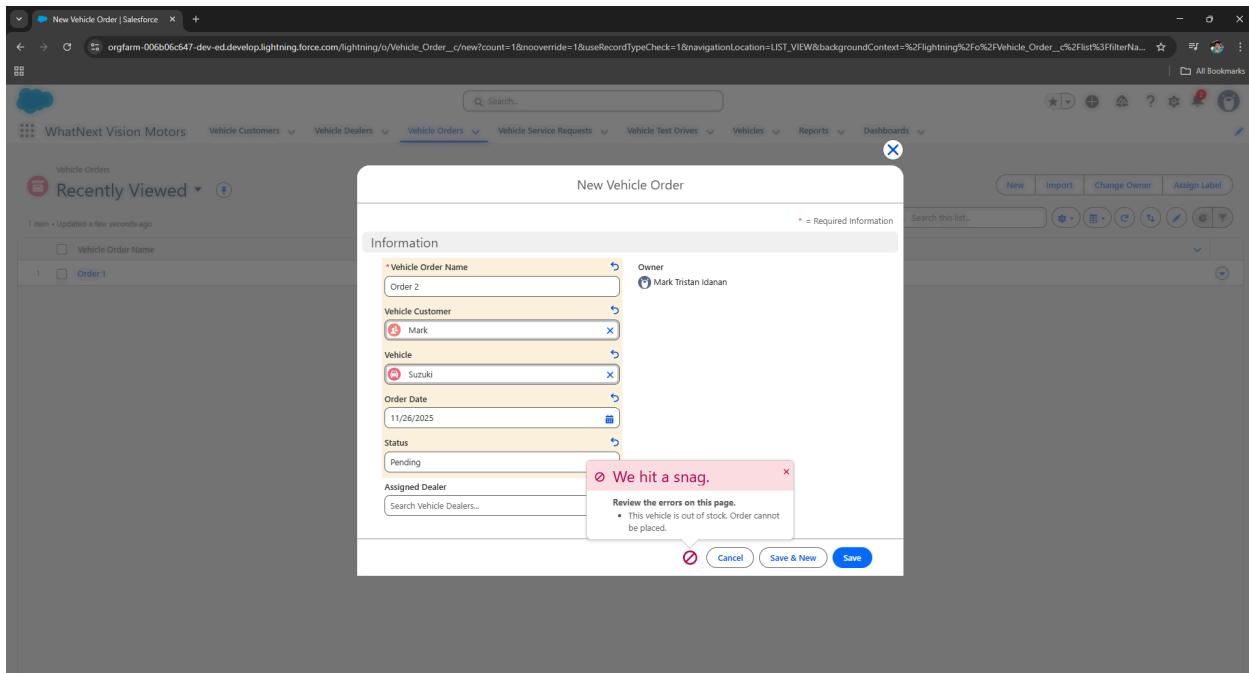
Why is this message in spam? This message is similar to messages that were identified as spam in the past.

Report not spam

Dear User Mark,  
This is a reminder that your test drive a04gK0000027EJUQU is tomorrow. If you need to reschedule please contact us at [support@gmail.com](#).  
Thank you.

Reply Forward

1 of 6



# **Phase 5: Deployment, Documentation & Maintenance**

## **Deployment Strategy**

- All components deployed using Change Sets:
  - Custom Objects
  - Flows
  - Apex Classes & Triggers
  - Page Layouts
  - Reports and Dashboards

## **Maintenance Plan**

- Admin will monitor scheduled jobs.
- Vehicle stock levels will be reviewed weekly.
- Flows and triggers will be updated based on new business requirements.
- Quarterly audits for data accuracy and sharing settings.

## **Troubleshooting Approach**

- Use Debug Logs to investigate flow or trigger issues.
- Use Setup → Paused & Failed Flow Interviews to diagnose flow failures.
- Apex exception logs reviewed for batch errors.
- Field history tracking supports data-related issues.

# Conclusion

The Salesforce CRM developed for WhatsNext Vision Motors successfully modernizes the entire customer ordering journey, from vehicle selection to order confirmation and follow-up service. With automated dealer assignment, stock validation, email reminders, and batch processing, the system eliminates manual work and ensures accuracy, transparency, and speed. This CRM is ready for real-world use and can scale with future enhancements such as chatbot integration, AI-powered vehicle recommendations, and multi-channel customer communication.

# Future Enhancements

- Chatbot integration for instant customer support: Implementing a Salesforce-powered chatbot would allow customers to get real-time assistance, ask questions about vehicles, check stock availability, or schedule test drives without waiting for a support agent.
- AI-powered suggestions for best dealer based on traffic or ratings: Using AI, the system could recommend the most suitable dealer for a customer by analyzing factors like dealer ratings, distance, and current traffic conditions, improving convenience and customer satisfaction.
- Integration with inventory management systems: Connecting Salesforce with external inventory systems would ensure that stock levels are always up-to-date and synchronized across all platforms, preventing stock discrepancies and improving order accuracy.
- Mobile App extension via Salesforce Mobile Publisher: Extending the CRM to a mobile application would enable sales reps and managers to access records, manage orders, and monitor stock on the go, providing flexibility and enhancing operational efficiency.