WhatNext Vision Motors: Shaping the Future of Mobility with Innovation and Excellence

Project Overview:

The Salesforce CRM project for WhatNext Vision Motors focuses on enhancing customer experience and streamlining internal operations through automation and smart workflow design. The system simplifies the vehicle ordering process by automatically assigning orders to the nearest dealer, validating stock availability, updating order statuses in real time, and sending scheduled email reminders for test drives. These features address key business needs such as reducing manual work, preventing order errors, improving response time, and ensuring accurate stock management to support a more efficient and customer-centric operation.

Objectives:

The main goal of this CRM project is to enhance the end-to-end customer ordering process. More specifically, it aims to:

- Automatically route customer orders to the most appropriate dealer based on location to accelerate processing.
- Eliminate issues caused by unavailable inventory by applying stock checks through Apex logic and system validations.
- Keep order information consistently up to date using automated batch operations and scheduled Apex routines.
- Equip management with clear, data-driven insights through customized dashboards and reports for smarter decision-making.

By fulfilling these goals, the CRM provides measurable value through quicker order handling, fewer manual mistakes, an improved customer experience, and stronger operational control.

Phase 1: Requirement Analysis & Planning

Understanding Business Requirements

• Manual processes slow down order handling.

• Dealers lack updated stock information.

• Stock checks and order reviews often contain errors.

Defining Project Scope and Objectives

• Automate dealer assignment for each new order.

• Build a centralized system for vehicles, customers, orders, test drives, and dealer records.

• Add validations to block orders for unavailable vehicles.

• Provide real-time dashboards and reports for monitoring.

Design Data Model and Security Model

• **Data Model:** Custom objects include Vehicles, Orders, Customers, Dealers, Test Drives, and Support Requests.

• **Security Model:** Uses roles, profiles, permission sets, and sharing rules for controlled access.

Stakeholders Mapping

• Customers – Place orders and request services.

• Dealers – Manage stock and process orders.

• Sales Team – Handle leads and customer interactions.

• Management – Use dashboards and reports for decisions.

Execution Roadmap

1. Finalize requirements and scope.
2. Develop backend automation.
3. Customize Lightning UX/UI design.
4. Conduct data migration, testing, and security checks.
5. Deploy system, prepare documentation, and maintenance.

Phase 2: Salesforce Development – Backend & Configurations

Setup Environment & DevOps Workflow

• A dedicated Salesforce sandbox was utilized for building features, running tests, and ensuring system stability.

• A deployment process was defined using change sets to move completed components into the production environment.
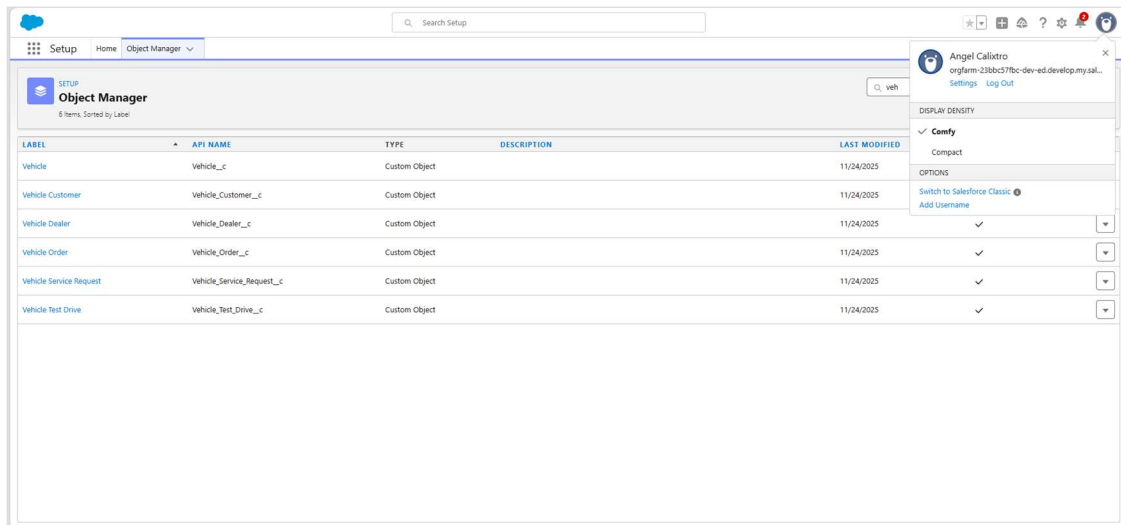
Customizations

• **Objects & Fields:** Created for Vehicles, Dealers, Customers, Orders, Test Drives, and Support Requests.

• **Validation Rules & Apex Triggers:** Prevent orders when stock is insufficient.

• **Automation:**

- **Flows**: Auto-assigns the nearest dealer for new orders.

- **Workflow Rules & Process Builder**: Sends email notifications and updates order statuses.

- **Batch & Scheduled Apex**: Handles automated updates to stock and orders.
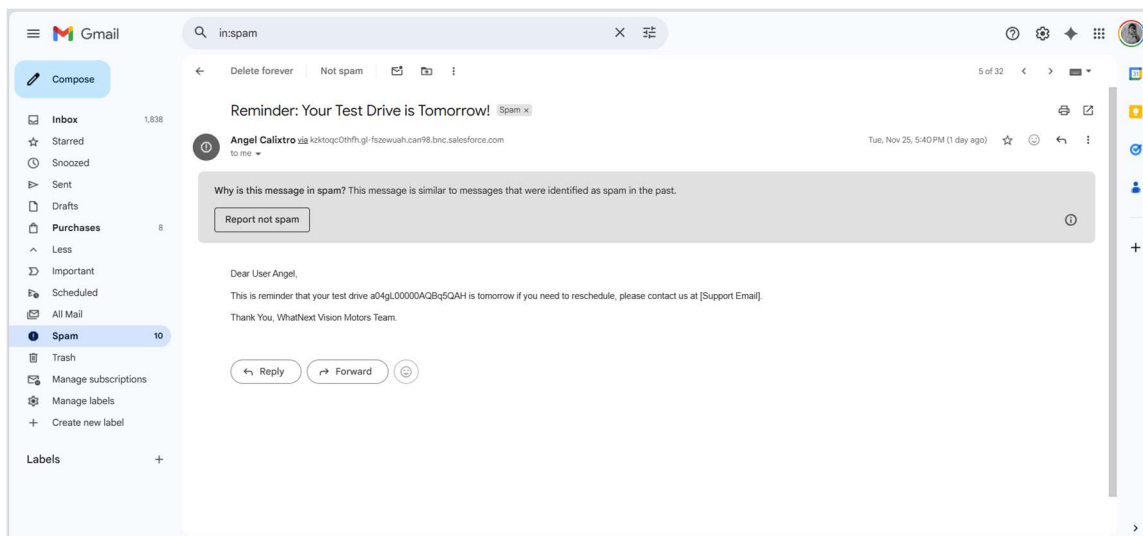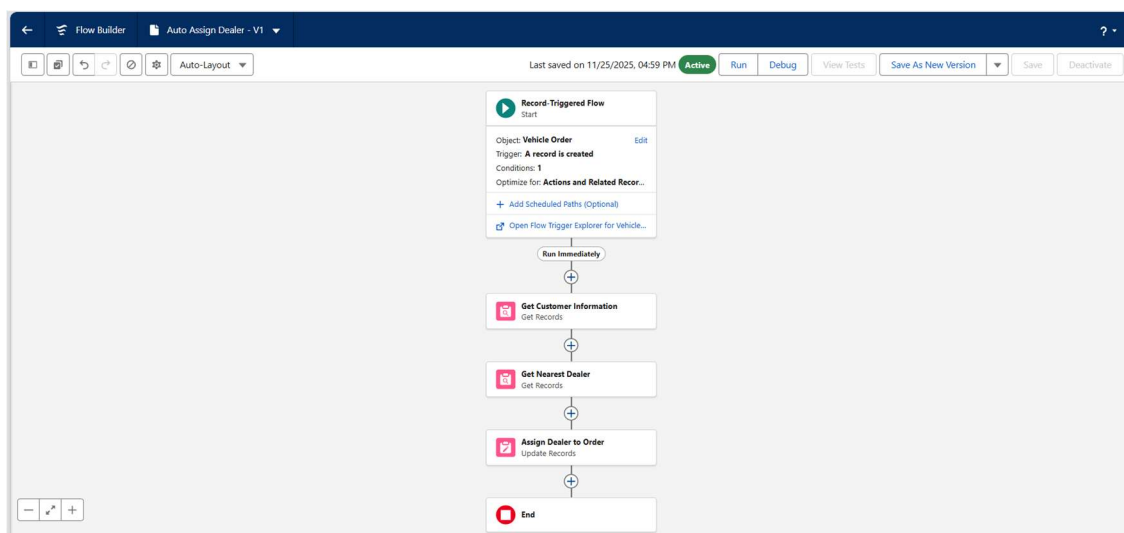
Phase 3: UI/UX Development & Customization

• **Lightning App Setup:** 'WhatNext Vision' app was created and configured using the App Manager.

• **Page Layouts & Dynamic Forms:** Designed for smooth navigation and usability.

• **User Management:** Profiles, roles, and permission sets were established to control access and permissions.

• **Reports & Dashboards:** Custom dashboards and reports were developed to monitor orders, inventory, and dealer activity.

• **Lightning Components:** Lightning Web Components (LWC) were optionally implemented to enhance interactivity.

• **Lightning Pages:** Pages were structured to present object data clearly and efficiently for users.

Vehicles
Recently Viewed

New | Import | Change Owner | Assign Label

1 item • Updated a few seconds ago

Search this list...

	Vehicle Name	
1	Toyota	

Vehicle Dealers
Recently Viewed

New | Import | Change Owner | Assign Label

2 items • Updated a few seconds ago

Search this list...

	Vehicle Dealer Name	
1	Liam	
2	Ian	

Vehicle Customers
Recently Viewed

New | Import | Change Owner | Assign Label

1 item • Updated a few seconds ago

Search this list...

	Vehicle Customer Name	
1	Angel	
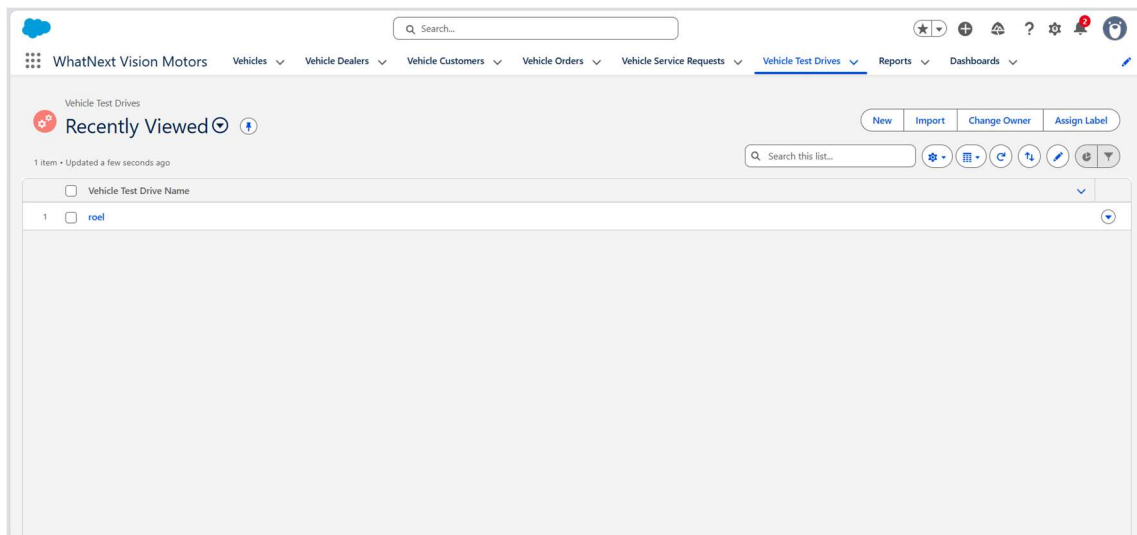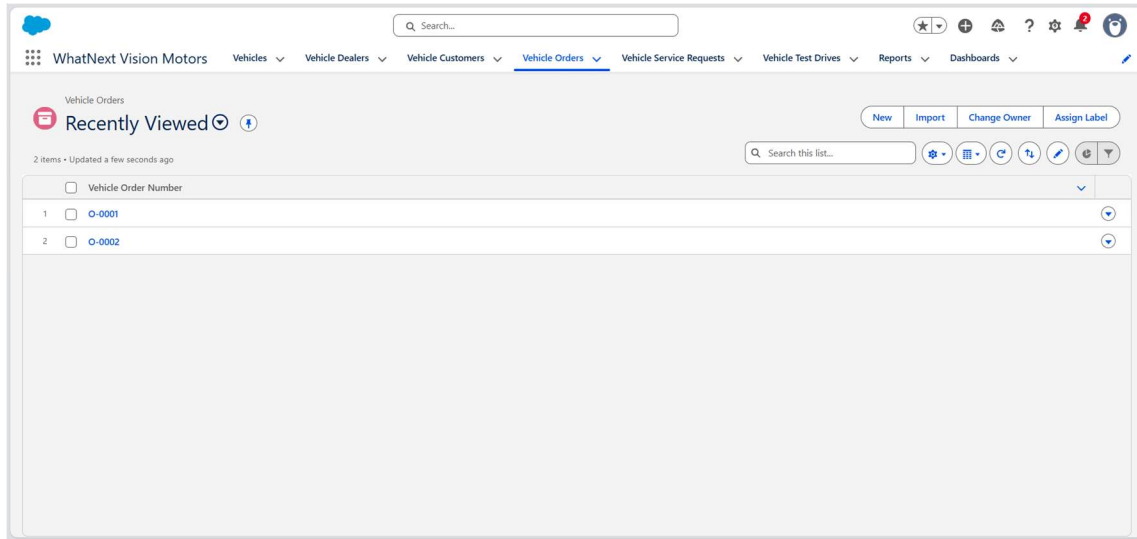
Phase 4: Data Migration, Testing & Security

• **Data Loading**: Transferred Vehicles, Dealers, and Customer records into Salesforce using Data Loader and Data Import Wizard.

• **Data Accuracy**: Implemented field history tracking, duplicate rules, and matching rules to maintain clean and reliable data.

• **Security Configuration**: Set up roles, profiles, role hierarchy, and permission sets to control data access.

• **Apex Testing**: Created test classes to validate triggers, batch processes, and automated

workflows.

• Testing Procedures:

- Verified the Auto Dealer Assignment flow.
- Tested approval processes, validation rules, and task automation to ensure proper functionality.
-

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VehicleOrderTriggerHandler.apxc ✕ VehicleOrderTrigger.apxt ✕ VehicleOrderBatch.apxc ✕ VehicleOrderBatchScheduler.apxc ✕

Code Coverage: None ▾ | API Version: 65 ▾   Go To

```
 1 ▾ public class VehicleOrderTriggerHandler {
 2
 3 ▾     public static void handleTrigger(List<Vehicle_Order__c> newOrders, Map<Id, Vehicle_Order__c> oldOrders, Boolean isBef
 4
 5 ▾         if (isBefore) {
 6
 7 ▾             if (isInsert || isUpdate) {
 8
 9                     preventOrderIfOutOfStock(newOrders);
10
11             }
12
13         }
14
15
16
```

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time ▾	Status	Read	Size

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```
 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.isInser
 3 }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

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Phase 5: Deployment, Documentation & Maintenance

• **Deployment:** Configurations were transferred from sandbox to production using change sets.

• **Maintenance:** System performance, scheduled automation, and logs are regularly monitored to ensure smooth operation.

• **Troubleshooting:** Common issues with triggers, flows, and batch processes were recorded along with their solutions.

Conclusion

The Salesforce CRM for WhatNext Vision Motors effectively improved the customer ordering process, inventory control, and dealer assignment workflows. Automation with Apex triggers, Flows, and Batch Apex minimized errors, enhanced data accuracy, and sped up operations. The project provided practical experience in developing a scalable solution that boosts efficiency and customer satisfaction.

Future Enhancements

• Incorporate AI-driven recommendations to optimize orders.

• Implement a chatbot for automatic customer support.

Improve mobile accessibility for sales teams and dealer operations in the field.