

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

Project Overview

WhatNext Vision Motors: Shaping the Future of Mobility with Innovation and Excellence is a modern automotive company that requires a streamlined and automated system to manage its growing customer base, vehicle orders, service operations, and inventory. To meet these needs, a customized Salesforce CRM is developed to centralize customer information, automate order processing, monitor real-time stock levels, coordinate dealership and service activities, and provide data-driven insights through dashboards and reports. With secure role-based access, custom objects, and automated workflows, the CRM enhances operational efficiency, reduces manual tasks, and supports the company's mission of delivering innovative, reliable, and customer-focused mobility solutions.

Objectives

The main goal of building the CRM system is to enhance the overall customer experience and improve the internal efficiency of WhatNext Vision Motors. The CRM is designed to centralize customer information, streamline communication, and automate essential processes allowing the business to manage inquiries, bookings, follow-ups, and after-sales services more effectively. By integrating these functions into a single platform, the company can make smarter decisions, respond faster to customer needs, and ensure consistent service quality across all touchpoints.

Specifically, the CRM aims to:

- streamline the vehicle ordering process by automating dealer assignments, validating orders more efficiently, and keeping status updates accurate and timely;
- enhance stock visibility and accuracy to prevent out-of-stock issues and reduce delays in order processing;
- elevate the customer experience through quicker transactions, automated notifications, and consistent, clear communication;
- boost operational efficiency by integrating all essential workflows into a single, unified Salesforce platform; and

- strengthen customer satisfaction and loyalty by delivering a seamless, transparent, and dependable service experience.

Phase 1: Requirement Analysis & Planning

- **Understanding Business Requirements:**

The CRM solution addresses the key challenges faced by WhatNext Vision Motors, including manual and time-consuming vehicle ordering processes, inconsistent dealer coordination, limited stock visibility, and difficulties in tracking customer interactions. Users need a centralized system that simplifies order management, streamlines communication, and ensures accurate, real-time information for customers, dealers, and internal staff. The CRM solves these problems by automating workflows, improving data accessibility, and supporting faster, more reliable service delivery.

- **Defining Project Scope and Objectives:**

The project focuses on designing and implementing a Salesforce CRM that supports the full operational lifecycle of WhatNext Vision Motors.

Key scope details include:

- developing a unified platform for managing customers, dealers, vehicles, orders, test drives, and service requests;
- creating automated processes for order approval, dealer assignment, stock validation, and status tracking;
- enabling real-time visibility of vehicle availability and dealer performance;
- establishing clear communication channels with automated reminders, notifications, and updates;
- enhancing reporting and analytics for decision-making and performance monitoring;
- configuring Salesforce security features to ensure data privacy, access control, and accurate role-based permissions.

- **Design Data Model and Security Model:**

The data model includes core entities such as Vehicle, Vehicle Dealer, Vehicle Customer, Vehicle Order, Vehicle Test Drive, and Vehicle Service Requests, along with the necessary relationships to ensure seamless workflow automation. The security model applies role-based access with defined permissions to protect sensitive data and ensure

users only access relevant records. Additional security measures include field-level security, validation rules, sharing rules, and approval mechanisms to maintain data integrity.

- **Stakeholders Mapping:**
 - **Executive Team** – Provides project direction and ensures alignment with business goals.
 - **Sales and Customer Service Staff** – Primary CRM users handling customer bookings, orders, and inquiries.
 - **Dealers and Partner Networks** – Coordinate order fulfillment and vehicle availability.
 - **IT and System Administrators** – Maintain, configure, and support the CRM system.
 - **Customers** – End-users receiving improved service through faster, more transparent processes.
- **Execution RoadMap:**
 - A structured, phase-by-phase blueprint covering everything from initial analysis to final deployment.
 - Define clear milestones for the development, testing, and rollout stages.

Phase 2: Salesforce Development – Backend & Configurations

- **Setup Environment & DevOps Workflow:**
 - Set up and prepared the Salesforce sandbox specifically for development tasks.
 - Established version control and deployment pipelines using tools such as VS Code and Git.
- **Customization of Objects, Fields, Validation Rules, and Automation:**
 - Created a full set of custom objects, including Vehicle, Vehicle Dealer, Vehicle Customer, Vehicle Order, Vehicle Test Drive, and Vehicle Service Request, to support the end-to-end business operations.
 - Customized the field of an object like this example of Vehicle:
 - Vehicle_Name__c (Text)
 - Vehicle_Model__c (Picklist: Sedan, SUV, EV, etc.)
 - Stock_Quantity__c (Number)

Price__c (Currency)

Dealer__c (Lookup to Dealer__c)

Status__c (Picklist: Available, Out of Stock, Discontinued)

- Configured workflow rules, process builders, and flows to automate and optimize key processes across the system.

- **Apex Classes, Triggers, and Asynchronous Apex:**

- Built Apex classes and triggers to handle backend automation and support system logic.

- **Documentation:**

- Screenshots of Apex Class and Apex Triggers.

```
VehicleOrderTriggerHandler.java
1 // Trigger: VehicleOrderTriggerHandler
2 // Vehicle Order Trigger Handler
3 // Handles triggers for Vehicle Order
4 // Before Insert, Before Update, After Insert, After Update
5
6 public class VehicleOrderTriggerHandler {
7     public void handleTrigger(Trigger.New triggerNew, Trigger.oldMap triggerOldMap, Trigger.Before, Trigger.AfterInsert, Trigger.AfterUpdate) {
8         VehicleOrderTriggerHandler.handleTrigger(triggerNew, triggerOldMap, triggerBefore, triggerAfterInsert, triggerAfterUpdate);
9     }
10 }
```

```
VehicleOrderBatch.java
1 // Global class VehicleOrderBatch implements Database.Batchable<Object> {
2
3     global Database.QueryLocator start(Database.BatchableContext bc) {
4         return Database.getQueryLocator('SELECT Id, Status__c, Vehicle__c FROM Vehicle_Order__c WHERE Status__c = \'Pending\'');
5     }
6
7     global void execute(Database.BatchableContext bc, List<Vehicle_Order__c> orderList) {
8         Set<Id> vehicleIds = new Set<Id>();
9         for(Vehicle_Order__c order : orderList) {
10             if (order.Vehicle__c != null) {
11                 vehicleIds.add(order.Vehicle__c);
12             }
13         }
14
15         if (vehicleIds.isEmpty() == true) {
16             return;
17         }
18         Map<Id, Vehicle__c> vehicleMap = new Map<Id, Vehicle__c>();
19         SELECT Id, Stock_Quantity__c FROM Vehicle__c WHERE Id IN vehicleIds
20
21         List<Vehicle_Order__c> orderToUpdate = new List<Vehicle_Order__c>();
22         List<Vehicle_Order__c> vehicleToUpdate = new List<Vehicle_Order__c>;
23
24         for (Vehicle_Order__c order : orderList) {
25             Vehicle__c vehicle = vehicleMap.get(order.Vehicle__c);
26             if (vehicle != null && vehicle.Stock_Quantity__c > 0) {
27                 order.Status__c = 'Confirmed';
28             }
29         }
30     }
31
32     global void finish(Database.BatchableContext bc) {
33     }
34 }
```

```
VehicleOrderScheduler.java
1 // Global class VehicleOrderScheduler implements Schedulable {
2
3     global void execute(SchedulableContext sc) {
4         Database.executeBatch(new VehicleOrderBatch());
5     }
6
7     global void finish() {
8     }
9 }
```

```
VehicleOrderBatchScheduler.java
1 // Global class VehicleOrderBatchScheduler implements Schedulable {
2
3     global void execute(SchedulableContext sc) {
4         VehicleOrderBatch batch = new VehicleOrderBatch();
5         Database.executeBatch(batch, 50); // 50 - batch size
6     }
7
8     global void finish() {
9     }
10 }
```

Phase 3: UI/UX Development & Customization

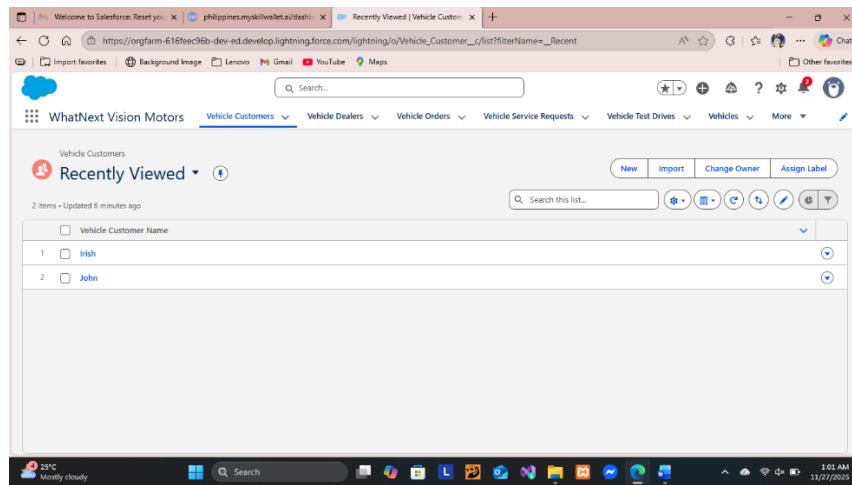
- **Lightning App Setup:**

- Set up the Lightning App through the App Manager, configuring the custom Salesforce application.

- **Page Layouts and Dynamic Forms:**

- Organized the fields, buttons, and related lists to create a clear and efficient record layout.

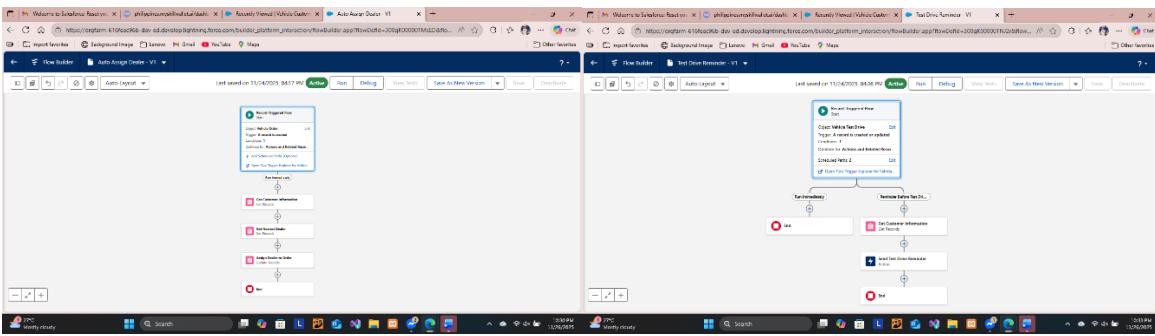
- Configured customized layouts for each user role across the Vehicle, Dealer, Customer, Order, Test Drive, and Service Request objects.
- Implemented dynamic forms to improve usability and provide a more adaptive user experience.
- **User Management:**
 - Managed users by setting up profiles, permission sets, and access levels to ensure correct interface visibility and secure data access.
- **Reports and Dashboards:**
 - Created reports and dashboards to deliver visual insights and real-time analytics for stakeholders.
- **LWC Development (if applicable):**
 - Created Lightning Web Components to deliver more advanced and interactive user interface features.
- **Lightning Pages:**
 - Customized the Lightning Pages to provide clearer navigation and a more user-friendly interface.
- **Documentation:**



Phase 4: Data Migration, Testing & Security

- **Data Loading Process:**
 - The video also demonstrates adding records manually inside Salesforce.
- **Field History, Duplicate and Matching Rules:**

- Implemented tracking for important fields to monitor changes over time.
- Set up a rule that notifies users when a newly created Lead has the same email or phone number as an existing Contact.
- **Profiles, Roles, Permission Sets, and Sharing Rules:**
 - Ensure secure access and proper data visibility across different user roles.
- **Creation of Test Classes:**
 - Created test classes for Apex code to validate functionality and ensure successful execution.
- **Documentation:**
 - Screenshot of the flows which are Auto Assign Dealer and Test Drive Reminder.



Phase 5: Deployment, Documentation & Maintenance

- **Deployment Strategy:**
 - Deployed all configurations and customizations using Salesforce change sets and other metadata deployment tools to ensure a smooth and controlled migration to the live environment.
- **System Maintenance & Monitoring:**
 - Perform routine system updates, backups, and performance checks.
 - Provide continuous support to users by addressing issues, validating automation behavior, and maintaining overall system stability.
- **Troubleshooting Documentation:**
 - Create detailed, step-by-step guides for diagnosing and resolving common issues, including reviewing flows and automations, checking validation behavior, and examining Apex debug logs for errors.

Conclusion

The development of the customized Salesforce CRM for WhatNext Vision Motors successfully delivers a fully integrated, automated, and user-friendly system that supports the company's operational needs from end to end. Through the implementation of custom objects, automated workflows, optimized UI layouts, and secure data management, the platform enhances the overall efficiency of vehicle ordering, customer handling, dealer coordination, and service processing. The project also incorporates detailed reporting, dashboards, and backend automation to ensure reliable performance and informed decision-making.

With thorough testing, proper documentation, and a structured deployment strategy, the CRM is now equipped to handle real-world business processes with accuracy and consistency. The system not only improves day-to-day operations but also strengthens customer satisfaction through faster transactions, clearer communication, and a more transparent service journey. Overall, this Salesforce solution provides WhatNext Vision Motors with a scalable and future-ready platform that supports growth, innovation, and long-term success.