

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

Abstract

WhatsNext Vision Motors, a trailblazer in the automotive industry, is redefining customer engagement and operational excellence through a strategic Salesforce CRM transformation. This initiative is centered around building an intelligent, scalable, and automated CRM system tailored to the complexities of vehicle sales, service, and customer lifecycle management. By harnessing Salesforce's robust capabilities—including custom objects, Lightning Apps, record-triggered flows, Apex triggers, batch processes, and scheduled automation—the organization effectively addresses critical pain points such as manual dealer assignments, test drive scheduling, and out-of-stock order prevention. The CRM solution dynamically assigns the nearest dealer based on geolocation, ensures only in-stock vehicles can be ordered, and automates communication flows for test drives and service requests. These innovations not only streamline internal operations but also elevate the customer experience with real-time responsiveness and transparency. WhatsNext Vision Motors, a forward-thinking leader in the automotive industry, has embarked on a Salesforce CRM transformation initiative aimed at enhancing its customer experience and streamlining operational processes. This project leverages Salesforce's powerful data modeling, automation, and development capabilities to manage vehicles, customer orders, dealer assignments, and service requests efficiently. Through custom objects, Apex triggers, batch processes, and automated flows, the system prevents common issues like ordering out-of-stock vehicles and manually assigning dealers. The result is a highly responsive, customer-centric CRM system that boosts accuracy, productivity, and customer satisfaction.

Objectives

- Centralize and manage vehicle, dealer, and customer data efficiently.
- Streamline the order-to-delivery process through automation.
- Prevent order placement for out-of-stock vehicles.
- Auto-assign orders to nearest dealers using geolocation logic.
- Automate test drive reminders and service request tracking.
- Enhance customer satisfaction and reduce manual overhead.

Developer Org Set up

Go to <https://developer.salesforce.com/signup>

On the sign up form, enter the following details:

First name & Last name

Email

Role : Developer

Company : College Name

County : Your country

Postal Code : pin code

Username : should be a combination of your name and company

Technical Description

The Salesforce CRM implementation at WhatsNext Vision Motors is built to support a seamless and scalable digital automotive experience. The technical architecture integrates declarative and programmatic elements of Salesforce to manage complex business logic and customer operations.

Custom Objects

Custom objects are created to model real-world entities like vehicles, customers, orders, test drives, service requests, and dealers. These objects capture relevant data, relationships, and processes specific to the automotive business.

- **Vehicle__c, Vehicle_Order__c, Vehicle_Customer__c, Vehicle_Dealer__c, Vehicle_Test_Drive__c, and Vehicle_Service_Request__c are the primary custom objects.**
- Relationships between objects are managed using Lookup relationships where applicable.

Lightning App

A custom Lightning App is designed to provide a centralized interface for sales agents and customer service reps. This app includes:

- Customized Lightning Record Pages
- Tab navigation for quick access to Vehicles, Orders, Dealers, Customers, and Reports
- Integrated List Views, Reports, and Dashboards
- Flow Creation

Several Flows are built to automate business processes without code:

- Dealer Assignment Flow: Suggests the nearest dealer automatically based on the customer's location.
- Test Drive Reminder Flow: Sends scheduled emails to customers for upcoming test drives.
- Order Status Update Flow: Automatically updates order status based on stock availability.

Record-Triggered Flow Creation

Record-Triggered Flows automate backend processes upon data changes:

- On order creation, trigger a flow to validate stock and assign the nearest dealer.
- On test drive booking, trigger a confirmation email and update related records.
- On service request creation, trigger notifications and log activity for customer support.
- Apex Implementation

Custom business logic that goes beyond Flow capabilities is handled using Apex, including:

- **Apex Triggers:**

Prevent orders for out-of-stock vehicles

Auto-assign dealer during order creation

- **Trigger Handlers: Modular Apex handler classes ensure maintainability and unit test coverage.**

- **Batch Apex:**

Processes large volumes of vehicle stock data to update availability

- **Scheduled Apex:**

Periodically updates order statuses and sends summary emails

Object Definition & Relationships

Custom Objects and Key Fields

Object Name	Key Fields	Purpose & Relationships
Vehicle__c	Vehicle_Name__c, Vehicle_Model__c, Stock_Quantity__c, Price__c, Status__c, Dealer__c	Stores vehicle details; related to Dealer & Orders
Vehicle_Dealer__c	Dealer_Name__c, Dealer_Location__c, Dealer_Code__c, Phone__c, Email__c	Stores dealer info; related to Orders
Vehicle_Customer__c	Customer_Name__c, Email__c, Phone__c, Address__c, Preferred_Vehicle_Type__c	Stores customer details; related to Orders & Test Drives
Vehicle_Order__c	Customer__c, Vehicle__c, Order_Date__c, Status__c	Tracks orders; related to Vehicle & Customer

Object Name	Key Fields	Purpose & Relationships
Vehicle_Test_Drive__c	Customer__c, Vehicle__c, Test_Drive_Date__c, Status__c	Tracks test drives; related to Vehicle & Customer
Vehicle_Service_Request__c	Customer__c, Vehicle__c, Service_Date__c, Issue_Description__c, Status__c	Tracks servicing; related to Vehicle & Customer

Process Automation

Flows & Workflows

- **Auto-assignment of Dealers:** A Flow based on the customer's address auto-assigns the nearest dealer to new orders.
- **Email Reminders:** Automated email flows remind customers about scheduled test drives.
- **Order Status Automation:** A scheduled process dynamically updates order status based on stock availability:

If stock is **0**, status → "Pending"

If stock is **available**, status → "Confirmed"

5. Apex Implementation

Apex Triggers

- **Stock Validation Trigger:** Prevents order creation if $\text{Stock_Quantity_c} \leq 0$.
- **Auto-Assignment Trigger:** Assigns Dealer__c based on proximity (via custom logic or geolocation API).
- **Trigger Handler Pattern:** All logic abstracted into handler classes for scalability and reusability.

Batch Apex

- **Batch Stock Update Job:** Periodically checks and updates vehicle stock levels from backend systems or manually.
- **Email Notification Job:** Sends alerts for low stock and pending orders.

Scheduled Apex

- **Order Processor Scheduler:** Runs daily to update order statuses based on current stock.

Conclusion

The Salesforce CRM implementation at WhatsNext Vision Motors marks a pivotal step toward digital transformation in the automotive sector. By aligning business processes with cutting-edge Salesforce features—such as custom data modeling, Apex automation, and flow orchestration—the organization has achieved a more agile, responsive, and intelligent operational framework. This initiative has dramatically improved key workflows, including vehicle order processing, dealer assignment, test drive scheduling, and service request tracking. Automated validations and scheduled processes ensure that no order proceeds without available stock, while customers receive timely updates and reminders—enhancing trust and satisfaction.

Future Scope

- 1 **Real-Time Stock Integration** with external ERP or inventory systems.
- 2 **Enhanced Geo-Mapping** for smarter dealer suggestions using Maps API.
- 3 **Customer Self-Service Portal** for test drive bookings, order tracking, and service scheduling.
- 4 **Advanced Analytics & Dashboards** for order trends, customer preferences, and vehicle demand.