



WhatsNext Vision Motors Salesforce CRM Implementation

Final Project Report

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Phase 1: Problem Understanding & Industry Analysis

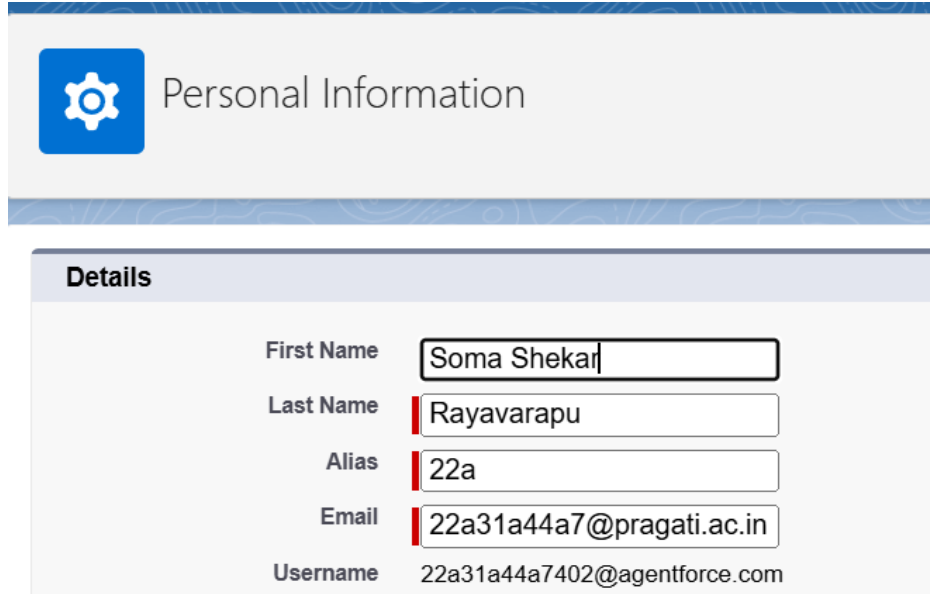
- **Elevating Customer Experience:** The project directly addresses the modern consumer's demand for a seamless, transparent, and convenient digital buying journey, from automated dealer selection to real-time order status updates.
- **Solving Critical Inventory Issues:** It tackles the core industry problem of supply chain volatility by implementing real-time stock validation, which prevents the sale of unavailable vehicles, manages customer expectations, and builds brand trust.
- **Boosting Operational Efficiency:** By automating manual tasks like order assignment and status updates, the system reduces administrative overhead, minimizes human error, and frees up employees for more strategic, customer-facing roles.
- **Gaining a Competitive Edge:** This initiative is a strategic move to modernize operations, placing the company on par with tech-forward competitors and transforming its processes to be more agile and data-driven in a rapidly evolving market.

Phase 2: Org Setup & Configuration

Creating the Application for effective data management.

Key activities in this phase:

- Org Setup: Create a Developer Org named WhatsNext Vision Motors Salesforce CRM Implementation.
- User Setup: Admin, Customer, Dealer.
- Sandboxes: Created for testing and UAT before production deployment.



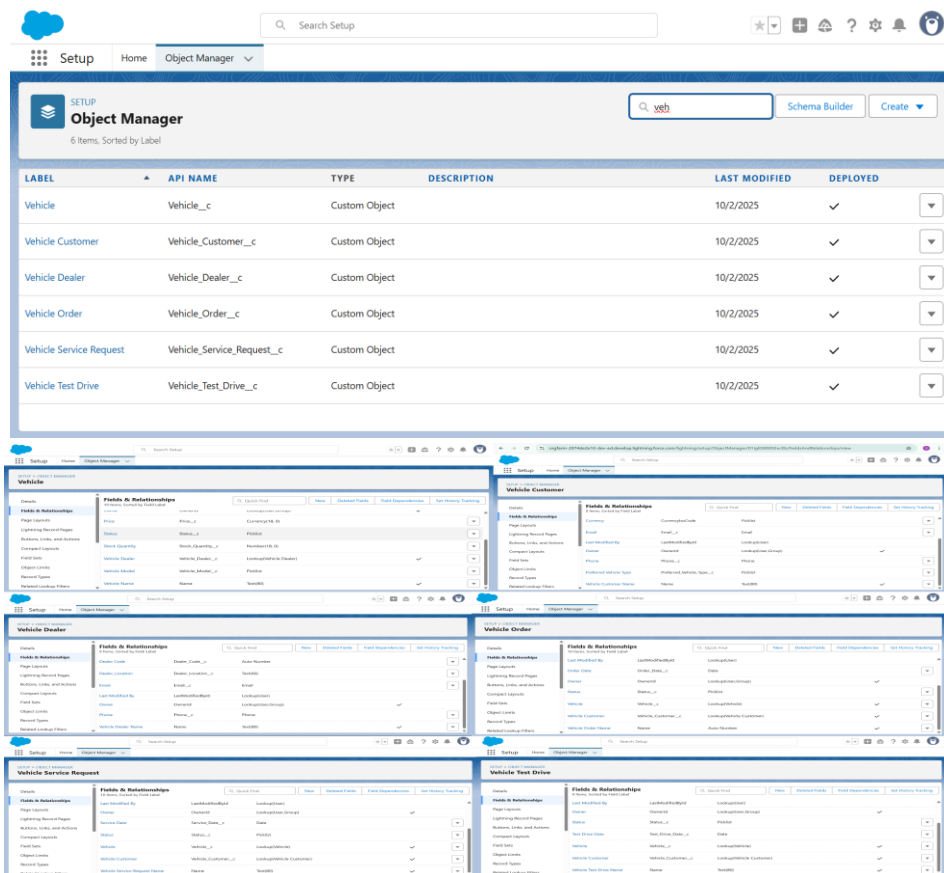
The screenshot shows the 'Personal Information' setup page in Salesforce. It features a blue gear icon and the title 'Personal Information'. Below this is a 'Details' section with a light blue header. The form contains the following fields:

First Name	Soma Shekar
Last Name	Rayavarapu
Alias	22a
Email	22a31a44a7@pragati.ac.in
Username	22a31a44a7402@agentforce.com

Phase 3: Data Modeling & Relationships

Prescription workflows require custom objects, relationships and fields.

- Custom Objects: Vehicle, Vehicle Customer, Vehicle Dealer, Vehicle Test Drive, Vehicle Service Request, Vehicle Order.
- Custom Fields: Vehicle Name, Stock Quantity, Price, Dealer, Dealer Location, Dealer Code, Phone, Email, Order Date, Address, Test Drive Date, Service Date, Issue Description.
- Refill Request: Vehicle Status (Available, Out of Stock, Discontinued), Vehicle Model (Sedan, SUV, EV, etc.), Order Status (Pending, Confirmed, Delivered, Canceled), Test Drive Status (Scheduled, Completed, Canceled), Service Request Status (Requested, In Progress, Completed).
- Relationships:
 - Vehicle — Dealer (lookup)
 - Vehicle Order — Customer (lookup)
 - Vehicle Order — Vehicle (lookup)
 - Vehicle Test Drive — Customer (lookup)
 - Vehicle Test Drive — Vehicle (lookup)
 - Vehicle Service Request — Customer (lookup)
 - Vehicle Service Request — Vehicle (lookup)



Phase 4: Process Automation (Admin)

Creating the Automation helps to run the business workflow automated.

Key Automations:

Flows:

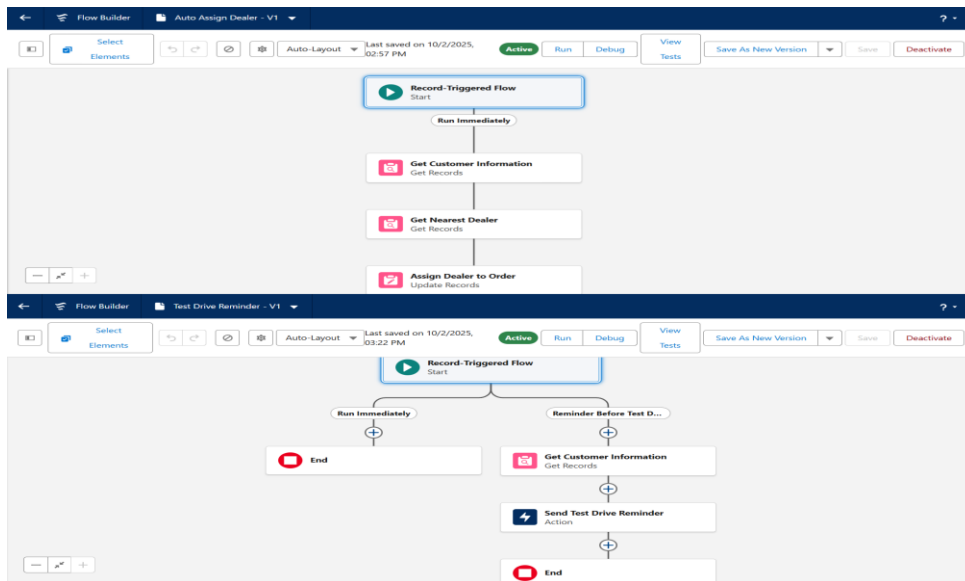
Reminder Flow -> Notify customer 1 day before for test drive.

Record triggered Flow -> Its automatically assign dealer for customer based on location.

Notifications:

Customer -> Email Reminders

Customer -> Email Reminder after stock is refilled.



Phase 5: Apex Programming (Developer)

- Built Apex triggers classes and batch job for data validation and calculations.
- Validating stock availability before an order is placed and deducting from the stock count after the order is confirmed.
- delegates all processing logic.
- It automates back-order fulfillment by processing all 'Pending' orders in bulk, confirming them as soon as the required vehicle is back in stock.
- It automates the VehicleOrderBatch job by putting it on a recurring schedule, ensuring that pending orders are processed regularly without any manual intervention.

```

1 trigger VehicleOrderTrigger on Vehicle_Order__c (before insert, before update, after insert, after update)
2 {
3     VehicleOrderTriggerHandler.handleTrigger(trigger.new, trigger.oldMap, trigger.isBefore, trigger.isAfter);
4 }

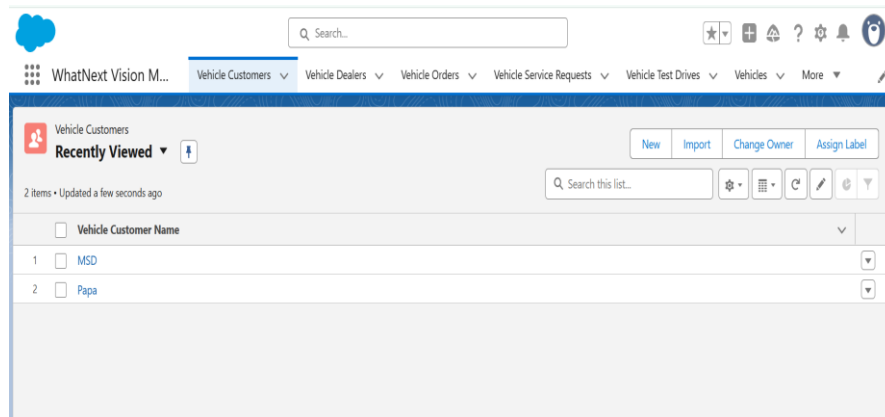
1 global class VehicleOrderBatchScheduler implements Schedulable {
2     global void execute(SchedulableContext sc) {
3         VehicleOrderBatch batchJob = new VehicleOrderBatch();
4         Database.executeBatch(batchJob, 50); // 50 = batch size
5     }
6 }

1 public class VehicleOrderTriggerHandler {
2     public static void handleTrigger(List<Vehicle_Order__c> newOrders, MapId, Vehicle_Order__c oldOrders)
3     {
4         if (isBefore || isBefore || isBefore) {
5             preventOrderIfOutOfStock(newOrders);
6         }
7     }
8     public static void preventOrderIfOutOfStock(List<Vehicle_Order__c> orders) {
9         updateStatusOnOrderPayment(newOrders);
10    }
11    private static void preventOrderIfOutOfStock(List<Vehicle_Order__c> orders) {
12        select vehicle__c from Vehicle_Order__c;
13        for (Vehicle_Order__c order : orders) {
14            if (order.Vehicle__c != null) {
15                vehicleId.add(order.Vehicle__c);
16            }
17        }
18    }
19    if (vehicleId.isEmpty()) {
20        MapId, vehicle__c vehicleStockMap = new MapId, Vehicle__c();
21        [SELECT Id, Stock_Quantity__c FROM Vehicle__c WHERE Id IN :vehicleId];
22    }
23    for (Vehicle_Order__c order : orders) {
24        vehicle__c vehicle = vehicleStockMap.get(order.Vehicle__c);
25        if (vehicle != null && vehicle.Stock_Quantity__c <= 0) {
26            order.addError('This vehicle is not at stock. Order cannot be placed.');
```

Phase 6: User Interface Development

- Built custom Lightning App with record pages, home layouts, and utility bar.
- Integrated Apex with LWC for dynamic, interactive data display.
- Store Customer data in app.
- Check Stock Quantity, Price of the Vehicle.

- Test Drive Scheduling, Complete and Canceled.
- Order Status Checking as Pending, Confirmed, Delivered, Canceled.



Phase 7: Integration & External Access

Vehicle workflows need third-party integration.

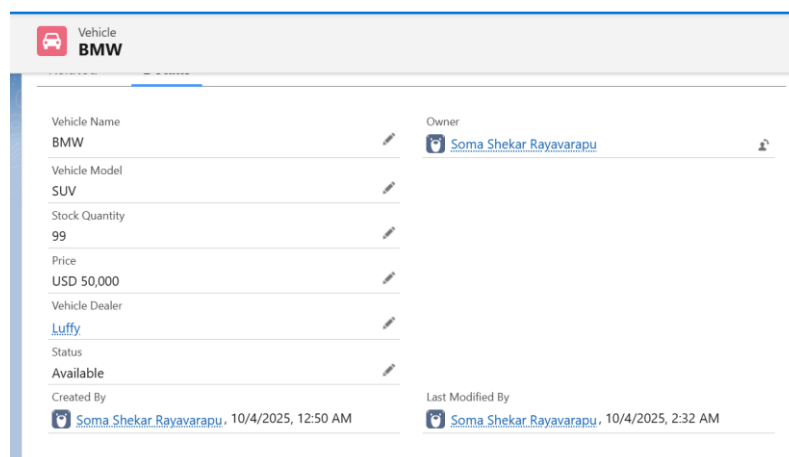
Integrations:

Vehicle Inventory System: Check stock availability in real-time.

Authentication: OAuth for secure customer login.

Phase 8: Data Management & Deployment

- The creation of custom tabs and a Lightning App directly relates to data management by providing the user interface for end-users to input, view, and interact with the data stored in the custom objects.
- Creating and activating Flows and Apex code.
- Storing Stock quantity, Price of the vehicle. Storing user details, order details, test drive details and service request details.



Phase 9: Reporting, Dashboards & Security Review

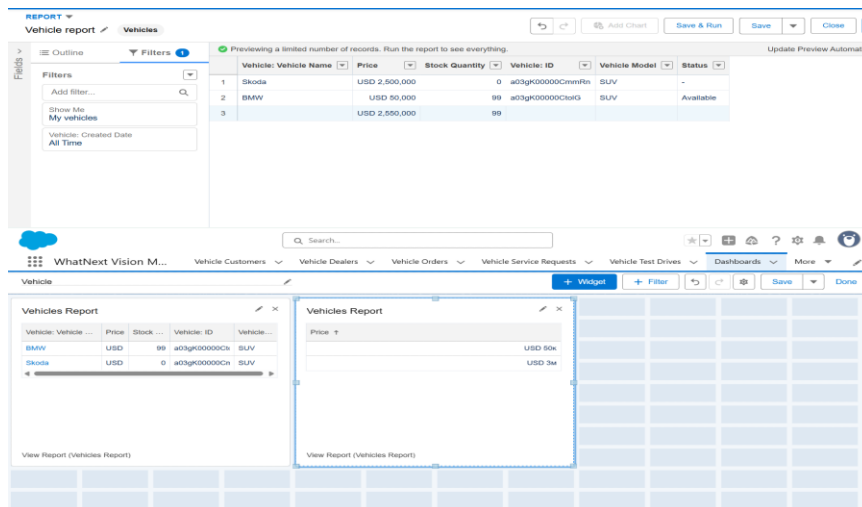
Reports and dashboards bring visibility; security ensures compliance.

Reports:

- Sales Performance by Dealer.
- Vehicle Model Popularity.
- Pending Order Aging.
- Service Request Volume.

Dashboards:

- Sales Manager Dashboard.
- Operations Dashboard.



Phase 10: Final Presentation & Demo Day

Exclusive Summary

- ✧ Built a complete Salesforce application to monitor and manage energy usage across devices and facilities.
- ✧ Combined **Admin skills** (data modeling, automation, security, dashboards) and **Developer skills** (Apex triggers, batch jobs, LWC)

Demo Flow

1. App Presentation.
2. Working process and details of every object on tabs.
3. Showing objects, fields and relationships in object manager.
4. In Setup, showed the tabs.
5. In Setup, showed the flow creation and uses of it.
6. The Apex Code explanation and live working proof.

Future Scope:

- **Customer Self-Service Portal:** Implement an **Experience Cloud (Community)** portal where customers can log in to track their order status in real-time, view their vehicle service history, schedule test drives or service appointments, and access a knowledge base for common questions.
- **Advanced Vehicle Configurator (CPQ):** Introduce **Salesforce CPQ (Configure, Price, Quote)** to allow customers to build and customize their vehicles online. They could select models, colors, and add-on packages, with the price updating dynamically for a fully personalized purchasing experience.
- **Marketing Automation:** Use **Marketing Cloud Account Engagement (Pardot)** or **Marketing Cloud** to create automated nurture journeys for potential buyers, send targeted promotional offers, and manage post-sale customer satisfaction surveys.