

Alberto, Ma. Althea R.	PUP - Sto Tomas
BSIT 4-1	

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

WhatsNext Vision Motors is revolutionizing its customer experience and operational efficiency with a cutting-edge Salesforce CRM implementation. The project streamlines the vehicle ordering process by auto-assigning orders to the nearest dealer based on customer location and preventing orders for out-ofstock vehicles. Automated workflows update order statuses dynamically and send scheduled email reminders for test drives. Key technical implementations include Apex triggers for stock validation, batch jobs for stock updates, and scheduled Apex for automated order processing. This initiative enhances customer satisfaction, improves order accuracy, and boosts overall operational efficiency.

Requirements:

1. Salesforce CRM Implementation

- Store and manage vehicle details, stock availability, and dealer information in Salesforce.
- Track customer orders, test drives, and service requests efficiently.
- Automate workflows to assign orders to the nearest dealer based on customer location.

2. Process Automation

- Prevent order placement if the vehicle is out of stock.
- Auto-assign orders to the nearest dealer based on the customer's location.
- Send automated email reminders for scheduled test drives.

3. Apex and Trigger

- Implement Apex triggers to enforce business rules such as stock validation and automatic dealer assignment.
- Use trigger handlers to follow best practices and ensure modularity and maintainability.

4. Batch Jobs

- Develop a batch Apex job to periodically check vehicle stock levels and update availability.
- Send scheduled email notifications for stock replenishment and order processing.

What you'll learn:

1. Data Modelling

- 2. Fields and Relationships
- 3. Lightning App Builder
- 4. Record Triggered Flows
- 5. Apex and Apex Triggers
- 6. Batch Apex
- 7. Scheduled Apex

Project Progress

Salesforce Credentials Creation

Setup

Home

Object Manager

Quick Find

Setup Home

Salesforce Go

Service Setup Assistant

Commerce Setup Assistant

Hyperforce Assistant

Release Updates

Salesforce Mobile App

Lightning Usage Optimizer

Sales Cloud Everywhere

ADMINISTRATION

Users

Data

Email

PLATFORM TOOLS

Subscription Management

Apps

Feature Settings

Welcome, Ma. Althea

Manage and customize Salesforce from Setup. Browse suggestions, explore features, and more.

Achieve Popular Business Goals

Cross Cloud

Connect with Sales Prospects and Customers

Help sales reps prioritize and engage with customers.

Includes

- Sales Cloud Everywhere
- Agentforce (Default)
- Einstein Sales Emails

3 Completed1 In Progress

Keep Going

Cross Cloud

Track & Manage Customer Data

Collect, organize, and analyze customer data to drive insights, personalize experiences, and boost engagement.

Includes

- Case Management
- Feedback Management
- Einstein Activity Capture

2 Completed1 In Progress

Keep Going

Sales

Capture & Auto-Qualify Leads

View All

Data Management-Objects

Object Manager

6 Items, Sorted by Label

vehicle

Schema Builder

Create

Label	API Name	Type	Description	Last Modified	Deployed
Vehicle	Vehicle__c	Custom Object		11/24/2025	✓
Vehicle Customer	Vehicle_Customer__c	Custom Object		11/24/2025	✓
Vehicle Dealer	Vehicle_Dealer__c	Custom Object		11/24/2025	✓
Vehicle Order	Vehicle_Order__c	Custom Object		11/24/2025	✓
Vehicle Service Request	Vehicle_Service_Request__c	Custom Object		11/24/2025	✓
Vehicle Test Drive	Vehicle_Test_Drive__c	Custom Object		11/24/2025	✓

Data Management-Tabs



← → ↻

orgfarm-ab7badcf08-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/01lgL0000039bJZ/FieldsAndRelationships/view

☆ 🔄 ⬇️ 📄 ? ⚙️ 🔔 👤

Action required

Setup

Home

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

Fields & Relationships

9 Items, Sorted by Field Label

Q Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

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)		✓ ▼

← → ↻

orgfarm-ab7badcf08-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/01lgL0000039ZzK/FieldsAndRelationships/view

☆ 🔄 ⬇️ 📄 ? ⚙️ 🔔 👤

Action required

Setup

Home

Object Manager

Vehicle Dealer

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

Fields & Relationships

8 Items, Sorted by Field Label

Q Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

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)		▼
Dealer Name	Name	Text(80)		✓ ▼
Email	Email__c	Email		▼
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone	Phone__c	Phone		▼

← → ↻

orgfarm-ab7badcf08-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/01lgL0000039ccd/FieldsAndRelationships/view

☆ 🔄 ⬇️ 📄 ? ⚙️ 🔔 👤

Action required

Setup

Home

Object Manager

Vehicle Order

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

Fields & Relationships

9 Items, Sorted by Field Label

Q Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

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 Number	Name	Auto Number		✓ ▼

Setup

Home

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

Fields & Relationships

8 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

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 Name	Name	Text(80)		✓

orgfarm-ab7badcf08-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/01lgL0000039boD/FieldsAndRelationships/view

Setup

Home

Object Manager

Vehicle Test Drive

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

Fields & Relationships

8 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

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)		✓

orgfarm-ab7badcf08-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/01lgL0000039bpp/FieldsAndRelationships/view

Setup

Home

Object Manager

Vehicle Service Request

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

Fields & Relationships

9 Items, Sorted by Field Label

Quick Find

New

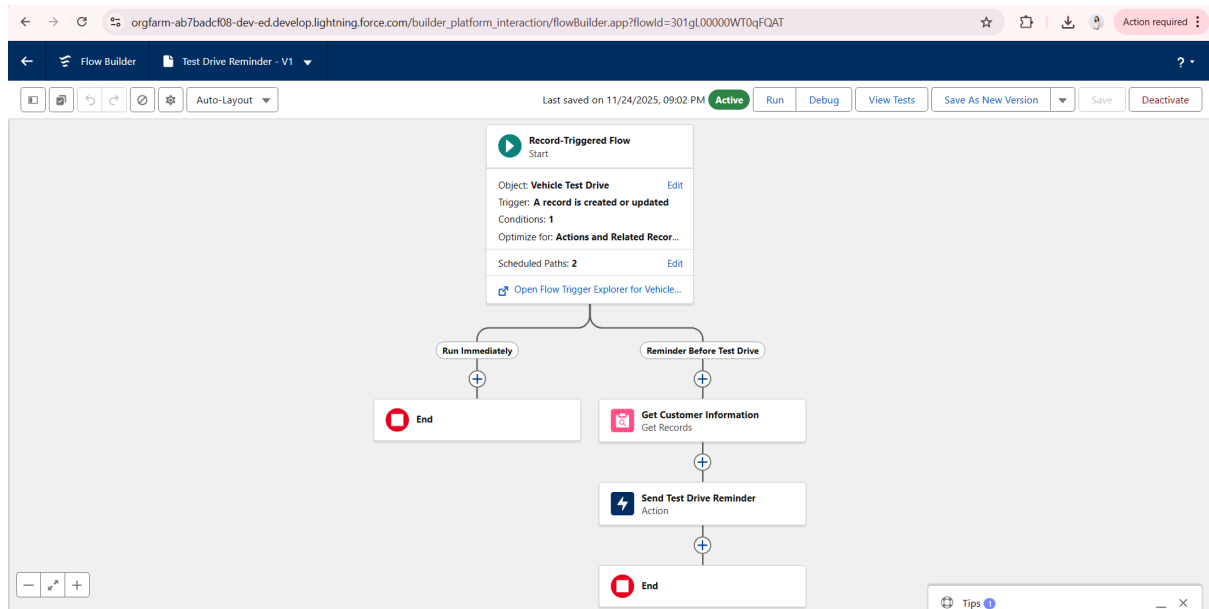
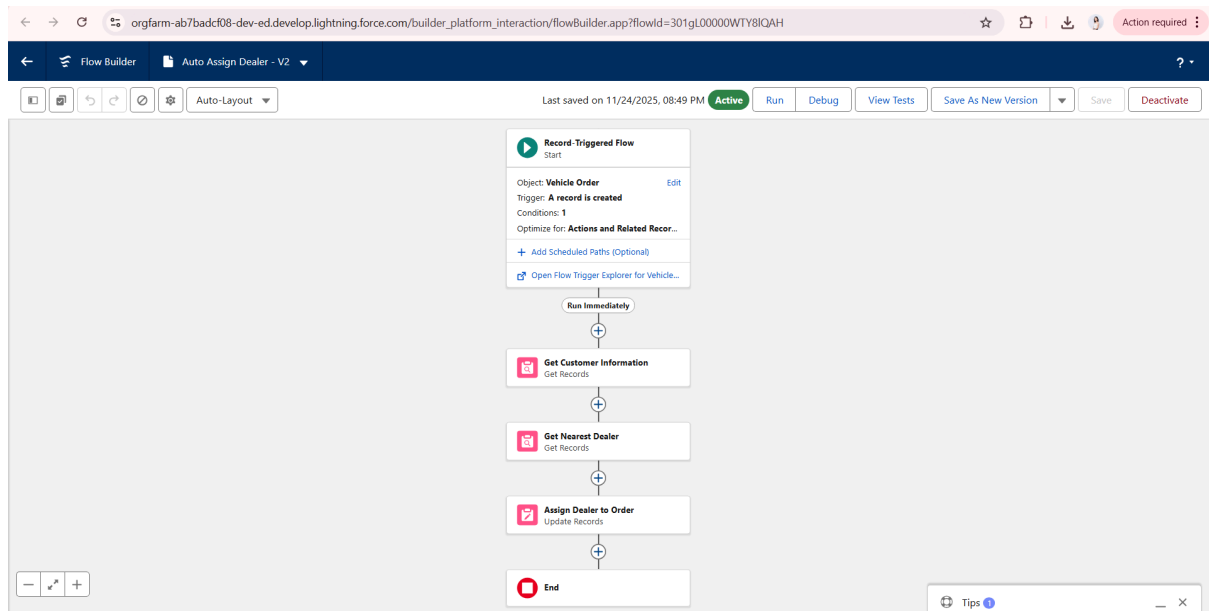
Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Issue Description	Issue_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)		✓

Automation



Apex and Batch Class

orgfarm-ab7badcf08-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

VehicleOrderTriggerHandler.apxc VehicleOrderBatchScheduler.apxc VehicleOrderTrigger.apxc VehicleOrderBatch.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 isBefore, Boolean isAfter, Boolean isInsert, Boolean isUpdate) {
4         if (isBefore && (isInsert || isUpdate)) {
5             preventOrderIfOutOfStock(newOrders);
6         }
7
8         if (isAfter && (isInsert || isUpdate)) {
9             updateStockOnOrderPlacement(newOrders);
10        }
11    }
12
13    // ✖ Prevent placing an order if stock is zero
14    private static void preventOrderIfOutOfStock(List<Vehicle_Order__c> orders) {
15        Set<Id> vehicleIds = new Set<Id>();
16        for (Vehicle_Order__c order : orders) {
17            if (order.Vehicle__c != null) {
18                vehicleIds.add(order.Vehicle__c);
19            }
20        }
21    }
22 }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Ma. Althea Alberto	Browser	/aura	11/24/2025, 10:26:14 PM	Success	Unread	316 bytes
Ma. Althea Alberto	Browser	/aura	11/24/2025, 9:56:38 PM	Success	Unread	316 bytes

Filter Click here to filter the log list

orgfarm-ab7badcf08-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

VehicleOrderTriggerHandler.apxc VehicleOrderBatchScheduler.apxc VehicleOrderTrigger.apxc VehicleOrderBatch.apxc

Code Coverage: None API Version: 65 Go To

```
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 }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Ma. Althea Alberto	Browser	/aura	11/24/2025, 10:26:14 PM	Success	Unread	316 bytes
Ma. Althea Alberto	Browser	/aura	11/24/2025, 9:56:38 PM	Success	Unread	316 bytes

Filter Click here to filter the log list

orgfarm-ab7badcf08-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File Edit Debug Test Workspace Help

VehicleOrderTriggerHandler.apxc VehicleOrderBatchScheduler.apxc VehicleOrderTrigger.apxc VehicleOrderBatch.apxc

Code Coverage: None API Version: 65 Go To

```
1 global class VehicleOrderBatch implements Database.Batchable<Object> {
2
3     global Database.QueryLocator start(Database.BatchableContext bc) {
4         return Database.getQueryLocator([
5             SELECT Id, Status__c, Vehicle__c FROM Vehicle_Order__c WHERE Status__c = 'Pending'
6         ]);
7     }
8
9     global void execute(Database.BatchableContext bc, List<Vehicle_Order__c> orderList) {
10         Set<Id> vehicleIds = new Set<Id>();
11         for (Vehicle_Order__c order : orderList) {
12             if (order.Vehicle__c != null) {
13                 vehicleIds.add(order.Vehicle__c);
14             }
15         }
16
17         if (!vehicleIds.isEmpty()) {
18             Map<Id, Vehicle__c> vehicleStockMap = new Map<Id, Vehicle__c>(
19                 SELECT Id, Stock_Qty FROM Vehicle__c WHERE Id IN :vehicleIds
20             );
21         }
22     }
23 }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Ma. Althea Alberto	Browser	/aura	11/24/2025, 10:26:14 PM	Success	Unread	316 bytes
Ma. Althea Alberto	Browser	/aura	11/24/2025, 9:56:38 PM	Success	Unread	316 bytes

orgfarm-ab7badcf08-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File Edit Debug Test Workspace Help

VehicleOrderTriggerHandler.apxc VehicleOrderBatchScheduler.apxc VehicleOrderTrigger.apxc VehicleOrderBatch.apxc

Code Coverage: None API Version: 65 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
Ma. Althea Alberto	Browser	/aura	11/24/2025, 10:26:14 PM	Success	Unread	316 bytes
Ma. Althea Alberto	Browser	/aura	11/24/2025, 9:56:38 PM	Success	Unread	316 bytes