

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

WhatNext Vision Motors is enhancing both its customer service capabilities and internal operational efficiency through the implementation of a robust Salesforce CRM ecosystem. The system optimizes the vehicle purchasing workflow by automatically assigning customer orders to the nearest dealership based on geographic proximity and preventing transactions for units that are no longer in stock. Automated processes maintain accurate, real-time order status updates and generate reminder emails prior to scheduled test-drive appointments. The platform's functionality is supported by Apex triggers to enforce inventory rules, Batch Apex for routine stock validation, and Scheduled Apex for autonomous processing of pending orders. Collectively, these advancements improve customer satisfaction, minimize ordering inaccuracies, and streamline day-to-day dealership operations.

System Requirements & Functional Highlights:

Salesforce CRM Core Setup

- Maintain comprehensive and up-to-date records of all vehicles, inventory levels, and dealership branch information.
- Efficiently document and monitor customer transactions, scheduled test drives, and service-related inquiries.
- Automatically assign customer orders to the dealership geographically closest to the customer's location.

Business Process Automation

- Prevent order submissions when the selected vehicle is out of stock.
- Initiate automated dealership assignment based on the customer's address or location data.
- Dispatch scheduled email notifications to provide timely reminders for upcoming test-drive appointments.

Apex Development & Trigger Logic

- Utilize Apex triggers to enforce critical business rules, including inventory validation and automated order routing.
- Adopt a structured trigger handler architecture to promote clean, scalable, and easily maintainable code.

Batch & Scheduled Processes

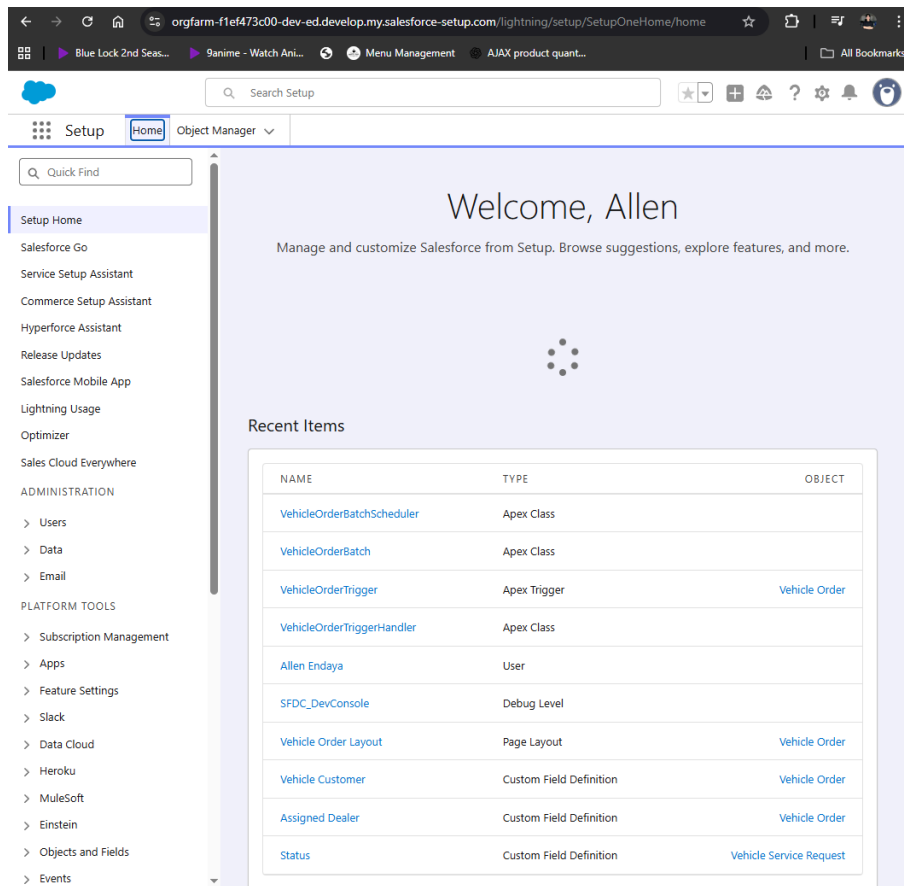
- Employ Batch Apex to regularly monitor inventory levels and update vehicle availability records.
- Utilize Scheduled Apex to automate routine stock updates and facilitate order-related notifications.

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



The screenshot shows the Salesforce Setup interface. The browser address bar displays the URL: `orgfarm-f1ef473c00-dev-ed.develop.my.salesforce-setup.com/lightning/setup/SetupOneHome/home`. The page header includes a search bar and navigation tabs for Setup, Home, and Object Manager. The left sidebar contains a navigation menu with categories like Setup Home, ADMINISTRATION, and PLATFORM TOOLS. The main content area displays a welcome message for 'Allen' and a 'Recent Items' table.

NAME	TYPE	OBJECT
VehicleOrderBatchScheduler	Apex Class	
VehicleOrderBatch	Apex Class	
VehicleOrderTrigger	Apex Trigger	Vehicle Order
VehicleOrderTriggerHandler	Apex Class	
Allen Endaya	User	
SFDC_DevConsole	Debug Level	
Vehicle Order Layout	Page Layout	Vehicle Order
Vehicle Customer	Custom Field Definition	Vehicle Order
Assigned Dealer	Custom Field Definition	Vehicle Order
Status	Custom Field Definition	Vehicle Service Request

Data Management Object

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Setup

Home

Object Manager ▾

SETUP

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Object Manager

6 Items, Sorted by Label

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vehicle

Schema Builder

Create ▾

LABEL	▲	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED	
Vehicle		Vehicle__c	Custom Object		11/20/2025	✓	▾
Vehicle Customer		Vehicle_Customer__c	Custom Object		11/20/2025	✓	▾
Vehicle Dealer		Vehicle_Dealer__c	Custom Object		11/20/2025	✓	▾
Vehicle Order		Vehicle_Order__c	Custom Object		11/20/2025	✓	▾
Vehicle Service Request		Vehicle_Service_Request__c	Custom Object		11/20/2025	✓	▾
Vehicle Test Drive		Vehicle_Test_Drive__c	Custom Object		11/20/2025	✓	▾

Data Management-Table

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SetupHomeObject Manager ▾

Search Setup

Search tabs

▾ User Interface

Rename Tabs and Labels

Tabs

Didn't find what you're looking for? Try using Global Search.

SETUP

Tabs

Custom Tabs

Help for this Page ?

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.

Custom Object Tabs

NewWhat Is This?

Action	Label	Tab Style	Description
Edit Del	Vehicle Customers	People	
Edit Del	Vehicle Dealers	Building	
Edit Del	Vehicle Orders	Box	
Edit Del	Vehicles	Car	
Edit Del	Vehicle Service Requests	Form	
Edit Del	Vehicle Test Drives	Gears	

Web Tabs

NewWhat Is This?

No Web Tabs have been defined

Visualforce Tabs

NewWhat Is This?

No Visualforce Tabs have been defined

Lightning Component Tabs

NewWhat Is This?

Action	Label	Tab Style	Description
Edit	Get Started with Agentforce	Heart	
Edit	Get Started with Data Cloud	Map	
Edit	Get Started with MuleSoft	Heart	
Edit	Get Started with Salesforce DX	Building Block	

[illegible]

Data Management-Fields

Vehicle Data Management-Fields

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

Object Access

Triggers

Flow Triggers

Validation Rules

Conditional Field Formatting

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)		
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)		✓ ▼

Vehicle Dealer Data Management-Fields

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Home

Object Manager ▾

SETUP > 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

Object Access

Triggers

Flow Triggers

Validation Rules

Conditional Field Formatting

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)		
Dealer Code	Dealer_Code__c	Auto Number		▼
Dealer Location	Dealer_Location__c	Text(60)		▼
Email	Email__c	Email		▼
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone	Phone__c	Phone		▼
Vehicle Dealer Name	Name	Text(80)		✓ ▼

Vehicle Order Data Management-Fields

The screenshot shows the Salesforce Setup interface for the "Vehicle Order" object. The left sidebar contains navigation links such as Details, Fields & Relationships (selected), 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, Object Access, Triggers, Flow Triggers, Validation Rules, and Conditional Field Formatting.

The main content area displays the "Fields & Relationships" section for the "Vehicle Order" object. It includes a search bar labeled "Quick Find" and tabs for "New", "Deleted Fields", "Field Dependencies", and "Set History Tracking". Below this, a table lists the fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
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		✓

Vehicle Customer Data Management-Fields

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SetupHomeObject Manager

SETUP > 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

Object Access

Triggers

Flow Triggers

Validation Rules

Conditional Field Formatting

Fields & Relationships

8 Items, Sorted by Field Label

Quick Find

NewDeleted FieldsField DependenciesSet 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 Customer Name	Name	Text(80)		✓▼

Vehicle Test Drive Data Management-Fields

Vehicle Test Drive

SETUP > OBJECT MANAGER

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
Object Access
Triggers
Flow Triggers
Validation Rules
Conditional Field Formatting

Fields & Relationships

8 Items, Sorted by Field Label

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)		✓ ▼

Vehicle Service Request Data Management-Fields

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SETUP > 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

Object Access

Triggers

Flow Triggers

Validation Rules

Conditional Field Formatting

Fields & Relationships

9 Items, Sorted by Field Label

🔍 Quick Find

New

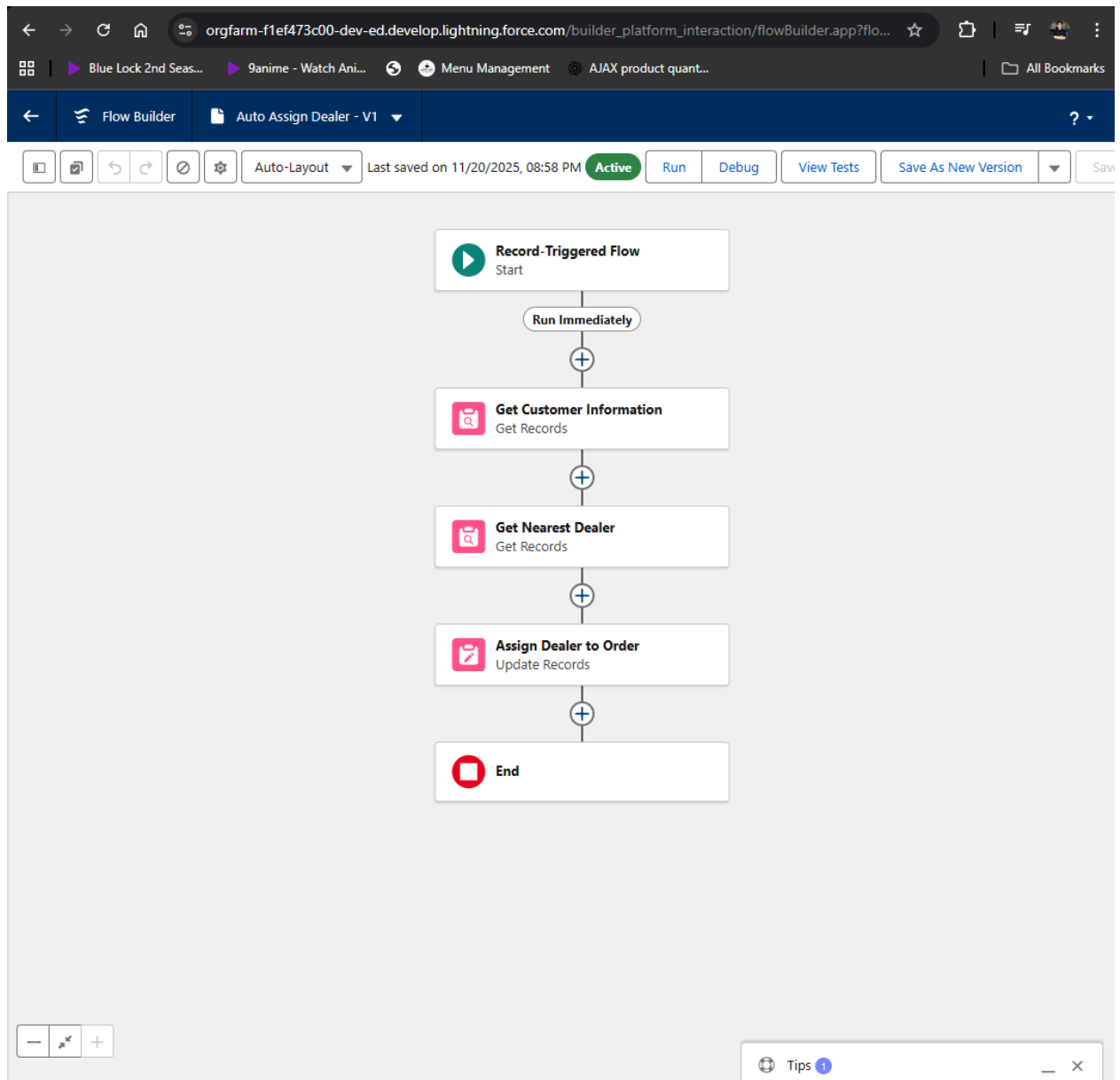
Deleted Fields

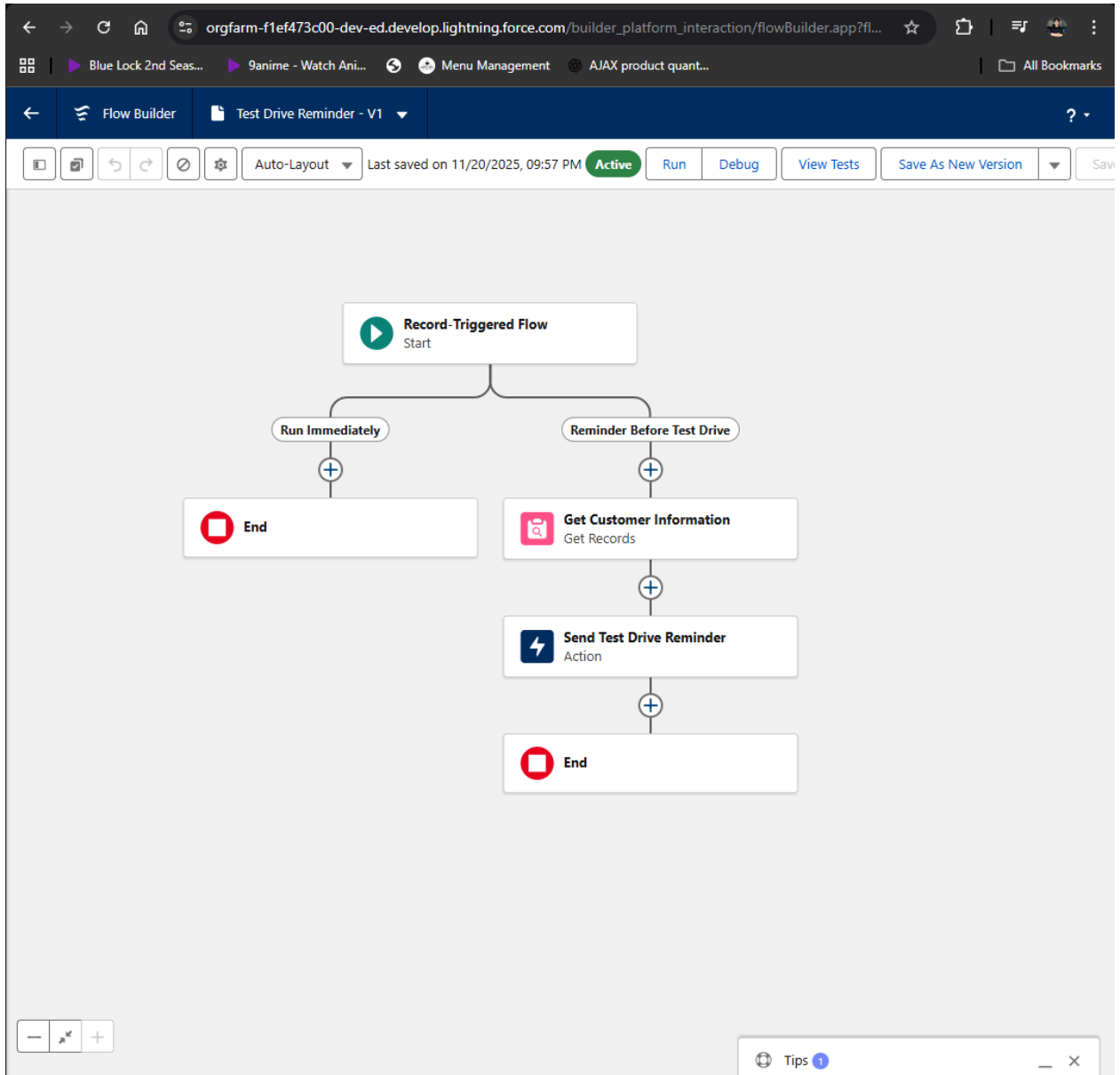
Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Issue Description	Issue_Description__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 Name	Name	Text(80)		✓ ▼

Automation





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WhatNext Vision Motors


Vehicle Customers ▾


Vehicle Dealers ▾

Vehicle Orders ▾

Vehicle Test Drives ▾

More ▾



 Vehicle Test Drive

test drive

✓ Vehicle Test Drive "test drive" was created. ✕

Contact

Edit


New Opportunity ▾

Related

Details


Vehicle Test Drive Name

test drive




Vehicle Customer

[Allen Benedict O. Endaya](#)




Vehicle

[Ford](#)




Test Drive Date

11/22/2025




Status



Scheduled




Created By

 [Allen Endaya](#), 11/20/2025, 5:59 AM

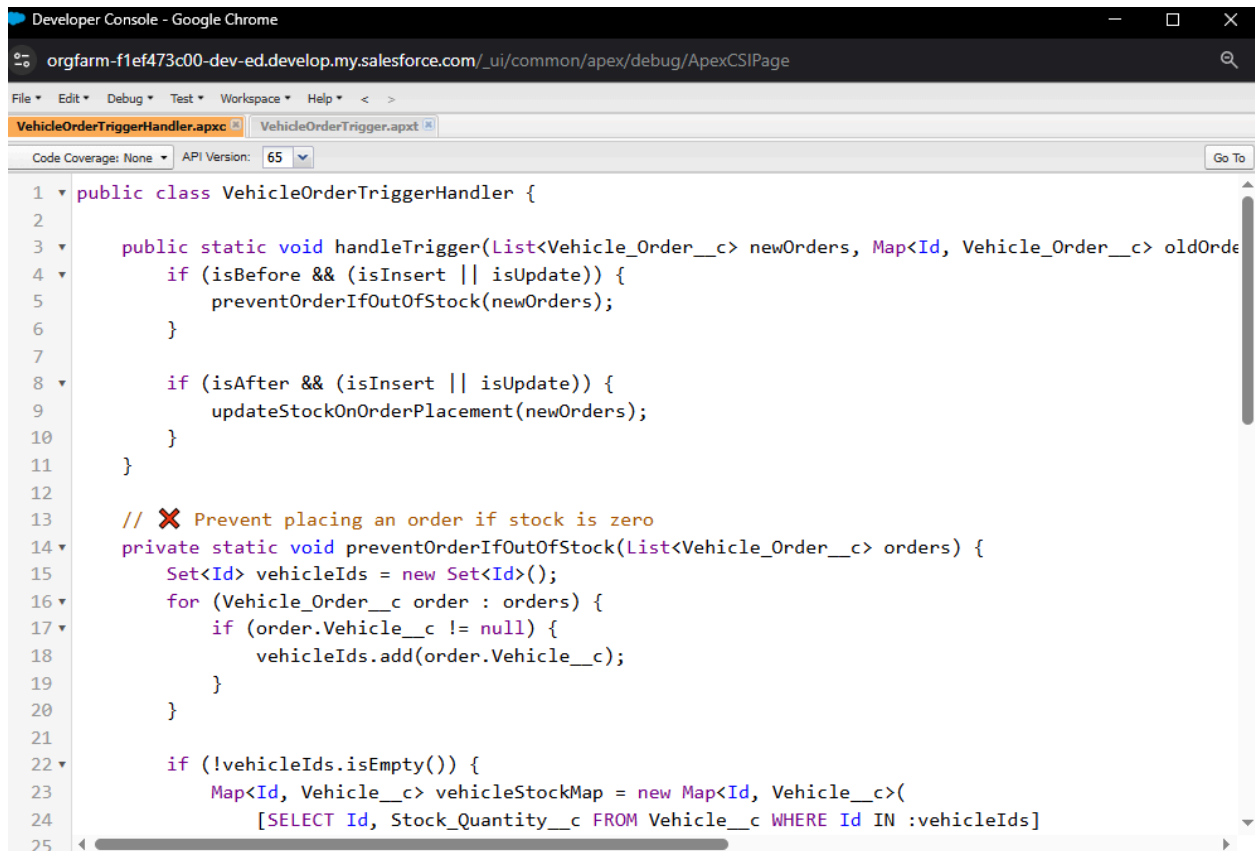
Owner

 [Allen Endaya](#) 

Last Modified By

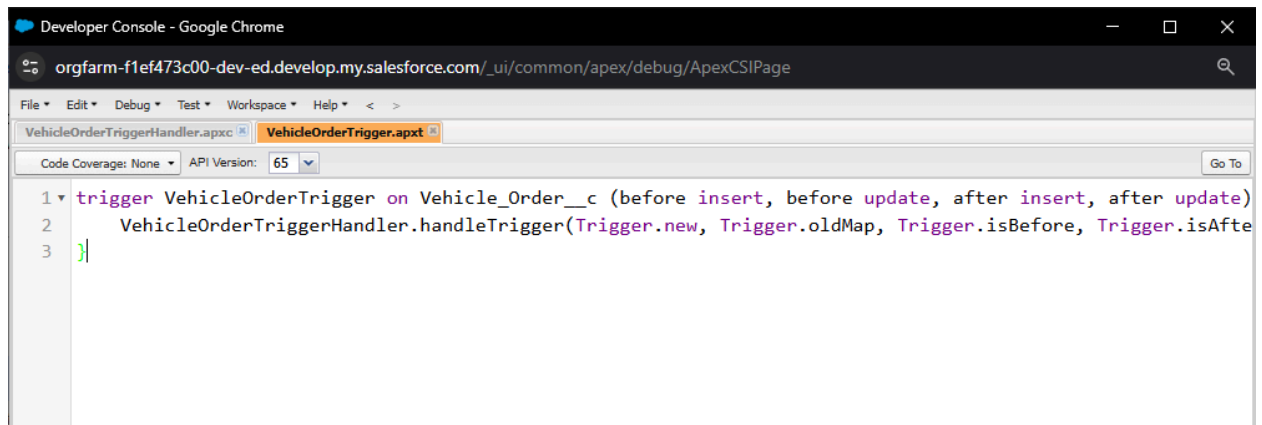
 [Allen Endaya](#), 11/20/2025, 5:59 AM

Apex and Batch Class



The screenshot shows the Salesforce Developer Console with the file `VehicleOrderTriggerHandler.apxc` open. The code defines a class `VehicleOrderTriggerHandler` with a static method `handleTrigger` and a private static method `preventOrderIfOutOfStock`.

```
1 public class VehicleOrderTriggerHandler {
2
3     public static void handleTrigger(List<Vehicle_Order__c> newOrders, Map<Id, Vehicle_Order__c> oldOrders) {
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        if (!vehicleIds.isEmpty()) {
23            Map<Id, Vehicle__c> vehicleStockMap = new Map<Id, Vehicle__c>({
24                [SELECT Id, Stock_Quantity__c FROM Vehicle__c WHERE Id IN :vehicleIds]
25            });
```



The screenshot shows the Salesforce Developer Console with the file `VehicleOrderTrigger.apxt` open. The code defines a trigger `VehicleOrderTrigger` on the `Vehicle_Order__c` object.

```
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 }
```

Developer Console - Google Chrome

orgfarm-f1ef473c00-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

VehicleOrderTriggerHandler.apxc VehicleOrderTrigger.apxt VehicleOrderBatch.apxc

Code Coverage: None API Version: 65 Go To

```
19 [SELECT Id, Stock_Quantity__c FROM Vehicle__c WHERE Id IN :vehicleIds]
20 );
21
22 List<Vehicle_Order__c> ordersToUpdate = new List<Vehicle_Order__c>();
23 List<Vehicle__c> vehiclesToUpdate = new List<Vehicle__c>();
24
25 for (Vehicle_Order__c order : orderList) {
26     Vehicle__c vehicle = vehicleStockMap.get(order.Vehicle__c);
27     if (vehicle != null && vehicle.Stock_Quantity__c > 0) {
28         order.Status__c = 'Confirmed';
29         vehicle.Stock_Quantity__c -= 1;
30         ordersToUpdate.add(order);
31         vehiclesToUpdate.add(vehicle);
32     }
33 }
34
35 if (!ordersToUpdate.isEmpty()) update ordersToUpdate;
36 if (!vehiclesToUpdate.isEmpty()) update vehiclesToUpdate;
37 }
38 }
39
40 global void finish(Database.BatchableContext bc) {
41     System.debug('Vehicle order batch job completed.');
```

Developer Console - Google Chrome

orgfarm-f1ef473c00-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

VehicleOrderTriggerHandler.apxc VehicleOrderTrigger.apxt VehicleOrderBatch.apxc VehicleOrderBatchScheduler.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 }
```

