WhatsNext Vision Motors - Salesforce Project Documentation

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1. Project Overview

WhatsNext Vision Motors, a pioneering leader in the automotive industry, has initiated a Salesforce project aimed at redefining its customer experience and operational efficiency.
This project leverages Salesforce automation, custom objects, and Apex programming to streamline the vehicle ordering process, manage stock availability, and ensure real-time updates.

2. Objectives

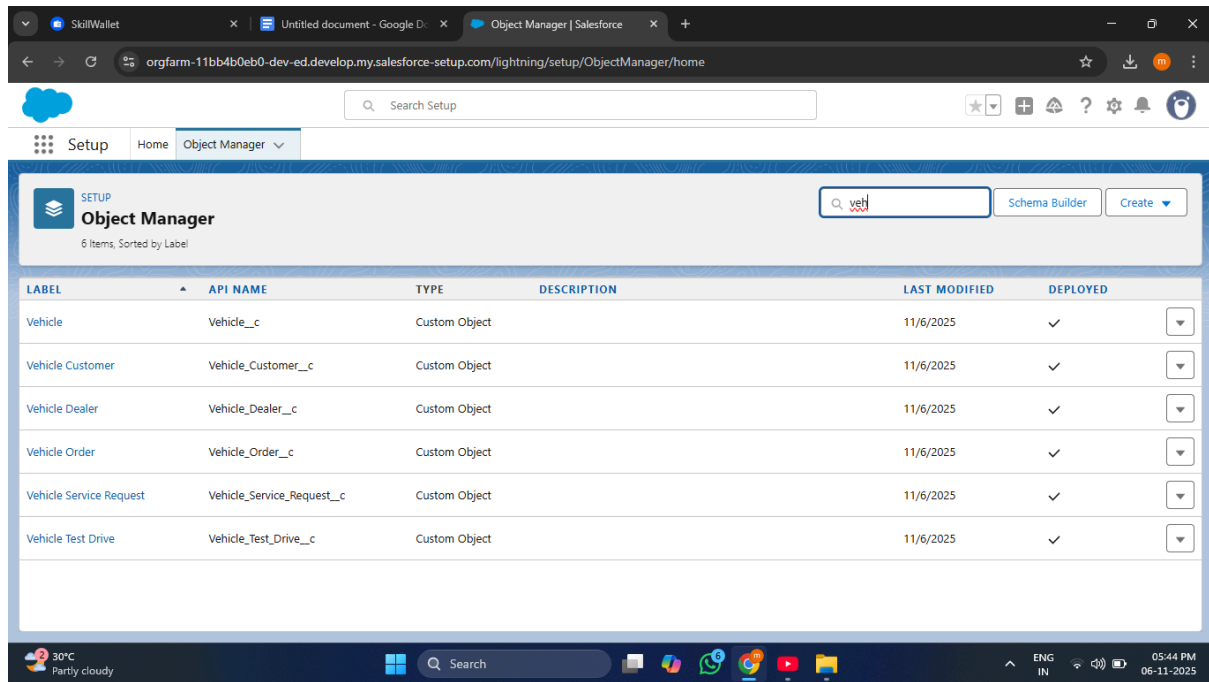The primary objectives of this Salesforce implementation are:
- Enhance the customer ordering experience.
- Automatically suggest the nearest dealer based on the customer's address.
- Prevent customers from placing orders for vehicles that are out of stock.
- Automate order status updates through scheduled processes.
- Improve accuracy, transparency, and operational efficiency.

3. Key Features

1. Automatic dealer suggestion based on customer location.
2. Stock validation before allowing order placement.
3. Scheduled automation to update order status dynamically.
4. Automated test drive reminders via email flow.
5. Comprehensive data relationships between vehicles, dealers, customers, and service requests.

4. Objects and Relationships

Object Name	Purpose	Relationships
Vehicle__c	Stores vehicle details	Related to Dealer & Orders
Vehicle_Dealer__c	Stores authorized dealer info	Related to Orders
Vehicle_Customer__c	Stores customer details	Related to Orders & Test Drives
Vehicle_Order__c	Tracks vehicle purchases	Related to Customer & Vehicle
Vehicle_Test_Drive__c	Tracks test drive bookings	Related to Customer & Vehicle
Vehicle_Service_Request__c	Tracks vehicle servicing requests	Related to Customer & Vehicle

5. Object Creation Steps

Each custom object must be created to manage and track different business processes.

Vehicle Object

Purpose: To store detailed vehicle information.
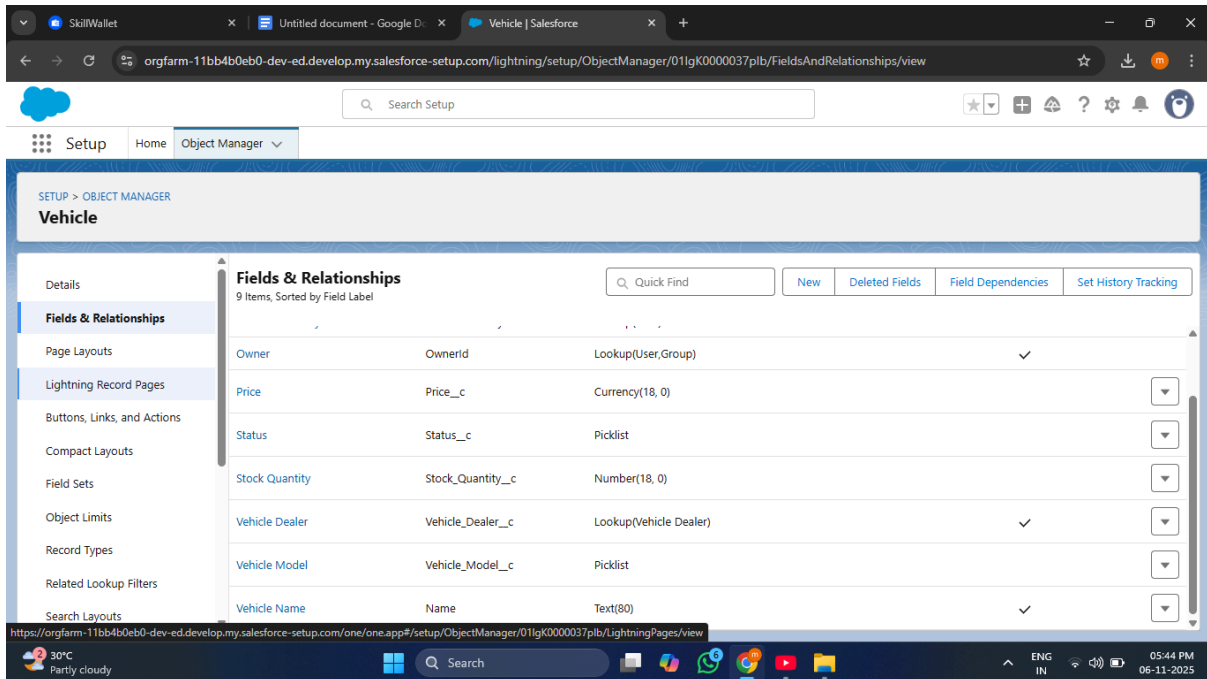
Steps:
1. Go to Setup → Object Manager → Create → Custom Object.
2. Label Name: Vehicle
3. Record Name: Vehicle Name (Text)
4. Enable: Allow Reports, Allow Search
5. Save the object.
6. Create a Custom Tab (Vehicle) and assign it to the app.

Dealer Object

Purpose: To maintain detailed dealer information.

Steps:
1. Go to Setup → Object Manager → Create → Custom Object.
2. Label Name: Vehicle Dealer
3. Record Name: Dealer Name (Text)
4. Enable: Allow Reports, Allow Search
5. Save the object.

6. Lightning App Setup

Purpose: To organize all related objects under a single application for easy access and navigation.
Steps:
1. Navigate to Setup → App Manager → New Lightning App.
2. Fill in app details such as:
   - App Name: WhatsNext Vision Motors
   - Description: Application for managing vehicle operations
   - Primary color: Default
3. Add navigation items (Vehicle, Dealer, Customer, Order, Test Drive, Service Request, Reports, Dashboard).

4. Assign user profiles (e.g., System Administrator).
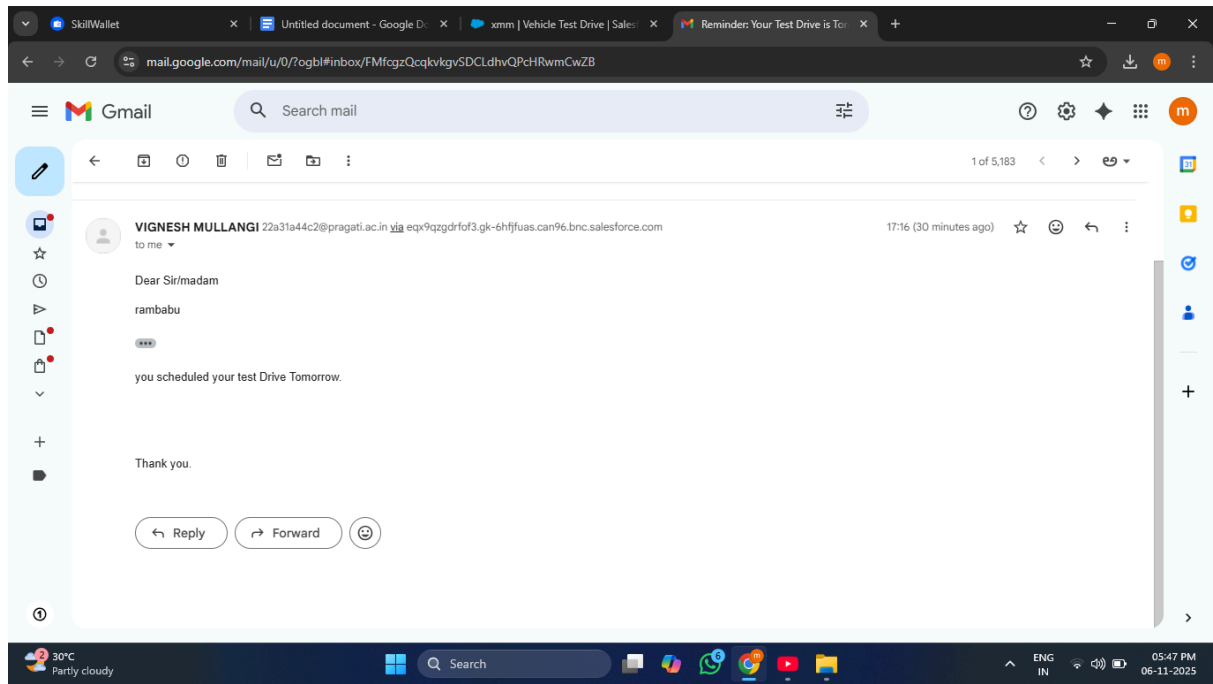
7. Fields & Relationships

Each object includes essential fields and relationships that define data connectivity and functionality.

Key Fields:
- Vehicle__c: Name, Model, Stock Quantity, Price, Dealer Lookup, Status
- Dealer__c: Name, Location, Code, Phone, Email
- Customer__c: Name, Email, Phone, Address, Preferred Vehicle Type
- Order__c: Customer Lookup, Vehicle Lookup, Order Date, Status
- Test_Drive__c: Customer Lookup, Vehicle Lookup, Test Drive Date, Status
- Service_Request__c: Customer Lookup, Vehicle Lookup, Service Date, Issue Description, Status

8. Flow Automation

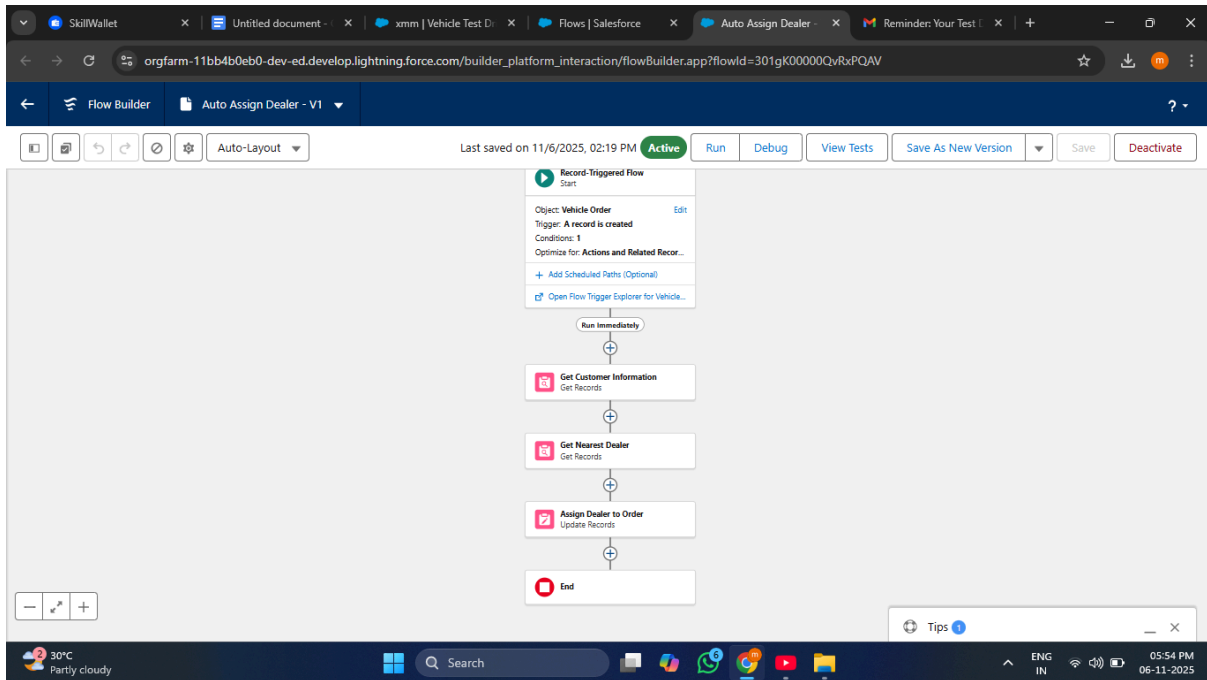Automated Flows enhance system intelligence and reduce manual operations.

Flow 1: Assign Nearest Dealer

Purpose: Automatically assign the closest dealer to the customer's address when an order is created.

Trigger: On Order Creation with Status = 'Pending'

Actions:

- Get Customer Information
- Get Nearest Dealer (matching address)
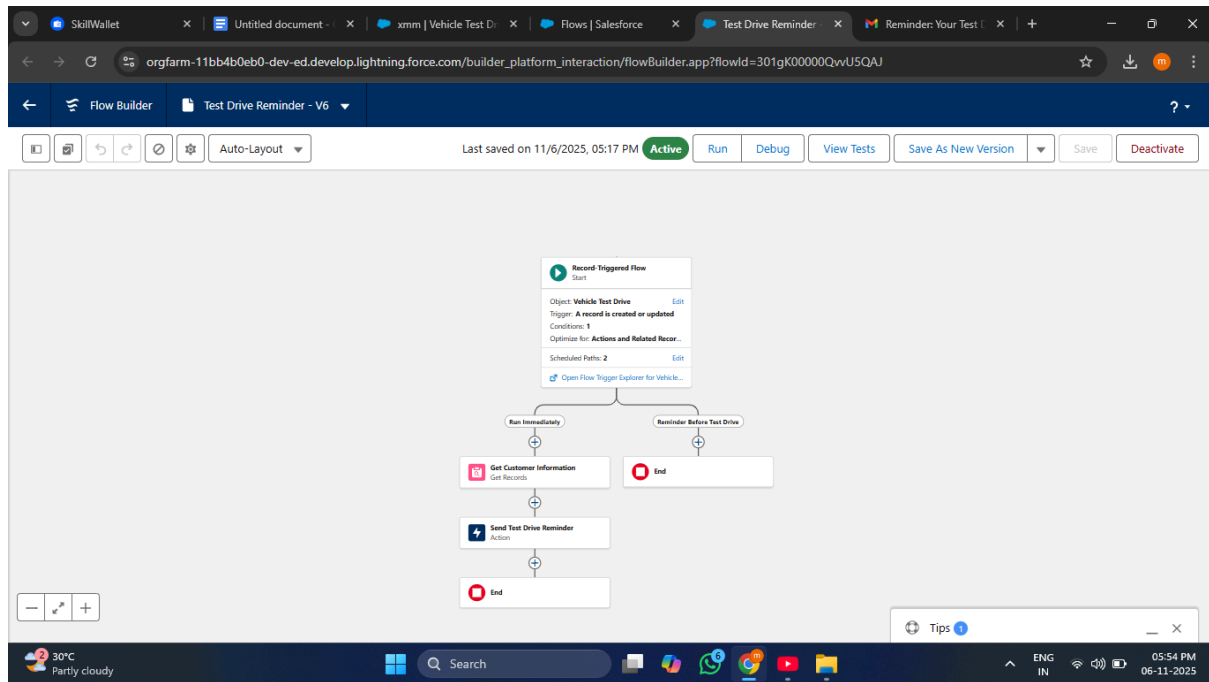- Update Order Record with Dealer Info

Flow 2: Test Drive Reminder

Purpose: Send automated email reminders one day before a test drive.

Trigger: On Test Drive creation/update with Status = 'Scheduled'

Action: Scheduled path to send an email reminder 1 day before the test drive date.
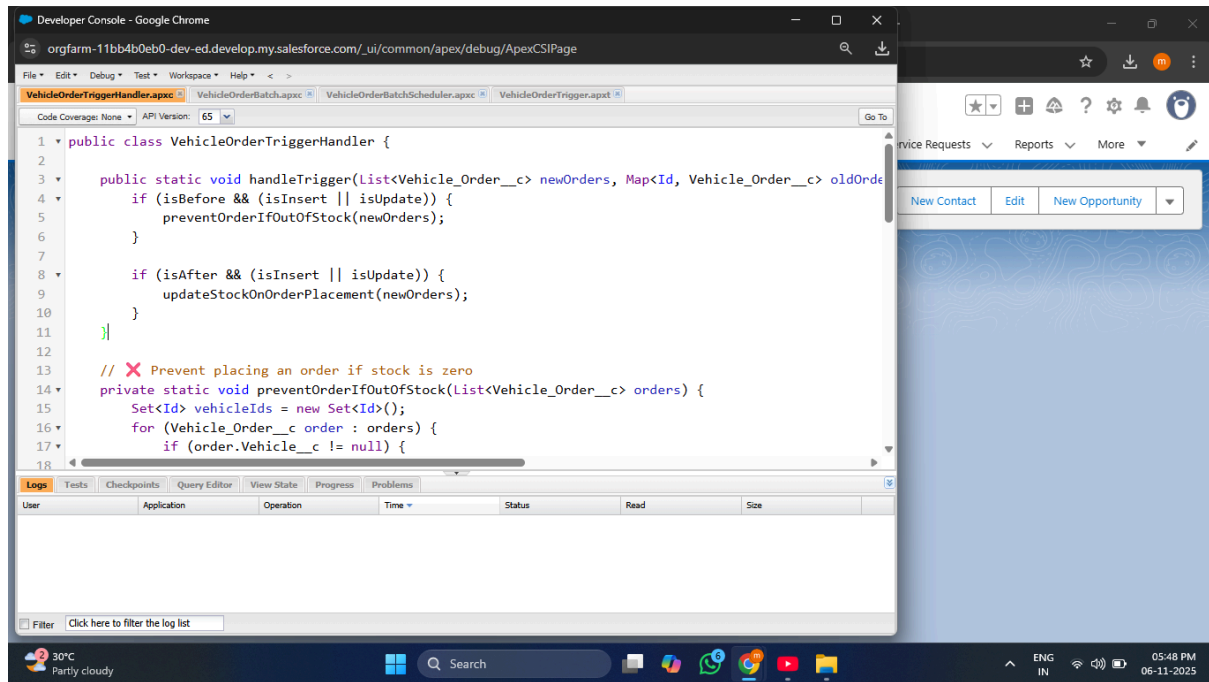
9. Apex Trigger and Handler

Purpose: To automate backend validation and stock management processes using Apex classes and triggers.

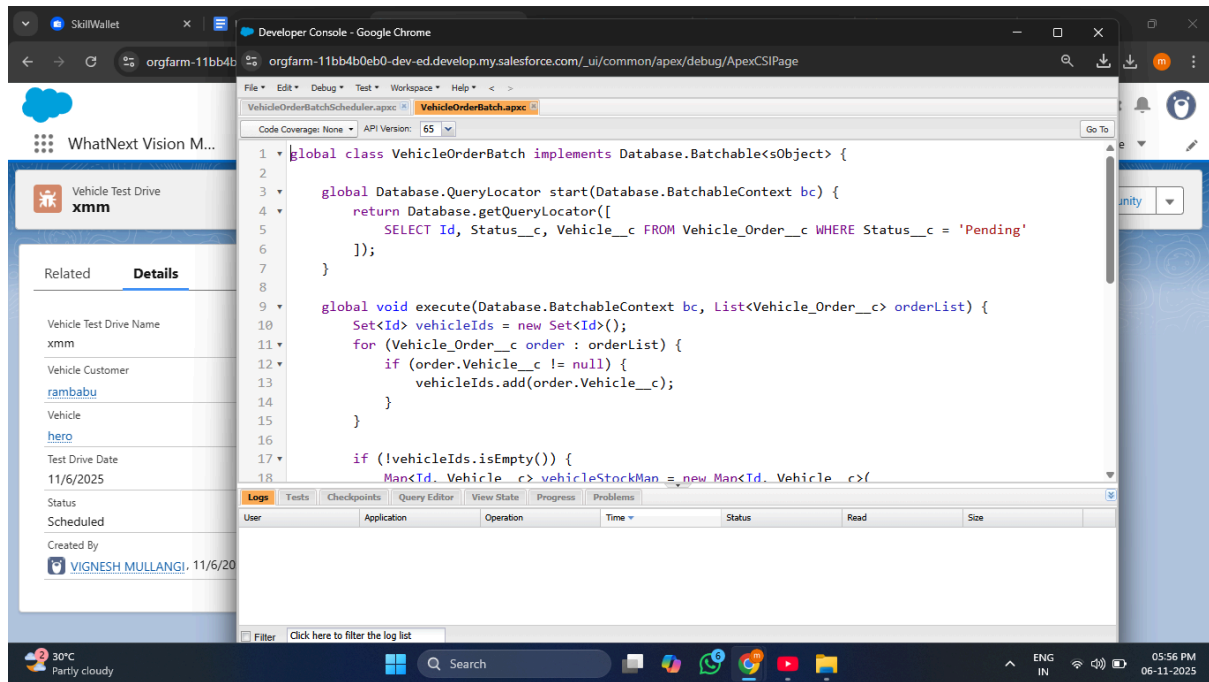Apex Class: VehicleOrderTriggerHandler

Responsibilities:

- Prevent order placement if the vehicle is out of stock.
- Automatically decrement stock on confirmed orders.

10. Batch Job Implementation

Purpose: To process bulk orders and automatically update pending orders when stock is replenished.
Steps:
1. Create an Apex class implementing Database.Batchable interface.
2. Query pending orders and related vehicles.
3. Update order statuses to 'Confirmed' when stock becomes available.
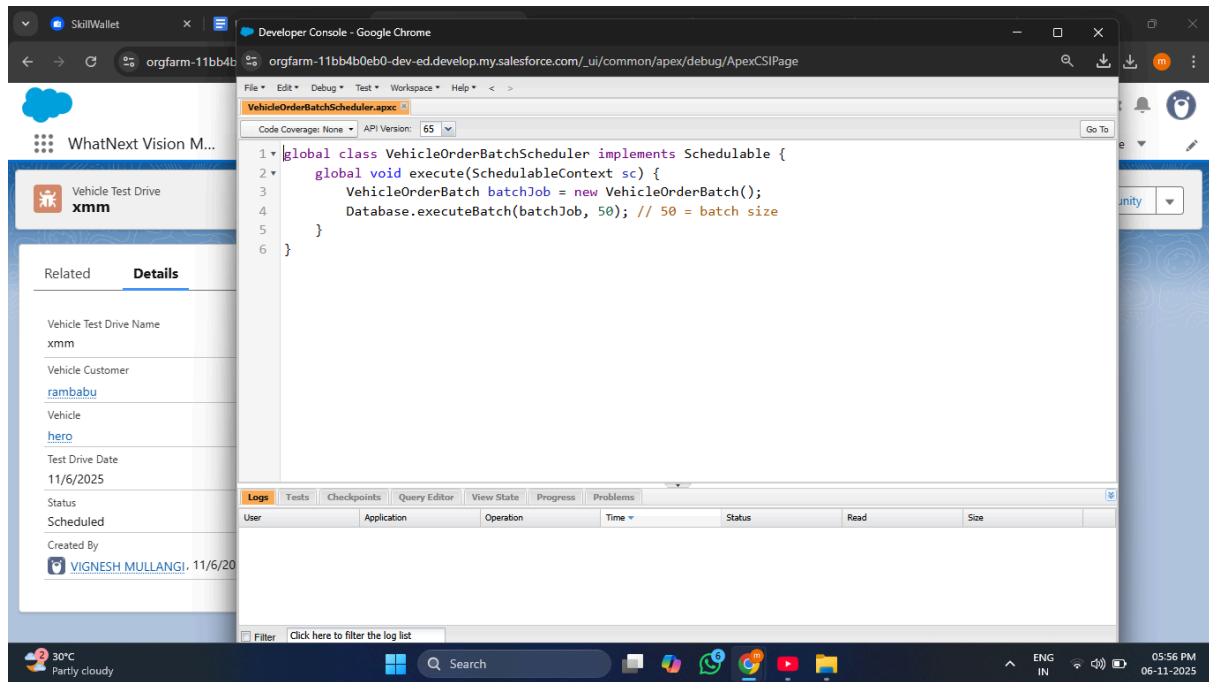
11. Scheduling the Batch Job

Purpose: To automate the execution of the batch job daily at a specific time.

Steps:

1. Create a Scheduler Apex Class implementing the Schedulable interface.

2. Schedule the batch using a cron expression.

Example:

```
String cronExp = '0 0 12 * * ?'; // Runs daily at 12 PM
```

12. Expected Outcomes

- Enhanced customer experience with automatic dealer assignment.
- Real-time stock management prevents unavailable orders.
- Automated notifications improving communication.
- Reduced administrative workload with batch automation.
- Improved operational transparency and data accuracy.