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

**Abstract**

This document presents the end-to-end implementation of the WhatNext Vision Motors project, whose objective is to automate vehicle order processing to foster efficiency, customer satisfaction, and sustainable mobility. The project harnesses Salesforce’s customization capabilities (objects, flows, triggers, batch classes) to bring smart, real-world business logic into digital vehicle management for the future of mobility.

**1. Introduction & Use Case**

* **Goal:** To automate the process of ordering vehicles, including matching customers to the nearest dealer, preventing out-of-stock orders, and enabling automated reminders for test drives—all powered by Salesforce.
* **Business Problem:** Manual order allocation, risk of over-promising out-of-stock vehicles, lapse in customer communication for test drives, non-optimized resource allocation.

**2. Object and Technology Description**

**2.1 Salesforce Custom Objects**

Six custom objects are designed to represent real-world automotive entities:

* **Vehicle:** Tracks each model, stock, price, dealer, and status.
* **Vehicle Dealer:** Captures dealer information, location, and contact details.
* **Vehicle Customer:** Stores customer records with preferences and contact data.
* **Vehicle Order:** Manages the orders, linking customer, vehicle, dealer, and order status.
* **Vehicle Test Drive:** Schedules and tracks test drives between customers and vehicles.
* **Vehicle Service Request:** Handles post-sales service requests.

**2.2 Core Technology Stack**

* **Salesforce Lightning Platform:** Provides UI, declarative automation, and security.
* **Flows:** For automatic dealer assignment and customer reminders.
* **Apex Classes and Triggers:** Custom logic for stock management and order validation.
* **Batch Apex:** Periodic checks on vehicle stock and order integrity.

**3. Detailed Project Execution**

**3.1 Setup & Configuration**

* Creation of all custom objects, fields (text, picklists, lookups, number, currency, auto-number), and record tabs.
* All necessary reference relationships (lookup fields) ensure data linkage (e.g., order to customer, vehicle to dealer).

**3.2 Automation with Salesforce Flows**

**A. Dealer Auto-Assignment Flow**

* **Purpose:** Upon new order creation (status “pending”), automatically link the order to the nearest dealer (matching on location).
* **Execution:** Triggered by record creation, it fetches the customer’s address and matches a dealer in close proximity, populating the order’s “assigned dealer” field.
* **Real-world mapping:** For example, an order from a customer in Hyderabad gets automatically assigned to a Hyderabad-based dealer. If customer John orders a Honda and his address is Hyderabad, the order routes to the Hyderabad dealer record.

**B. Test Drive Reminder Flow**

* **Purpose:** Email reminder is sent to customer 1 day prior to scheduled test drive.
* **Execution:** Scheduled flow checks for test drives with status “Scheduled” and sends template emails to the customer’s email.
* **Real-world scenario:** If a test drive with John is scheduled for tomorrow, he gets an automated reminder email.

**3.3 Apex Automation**

**A. Stock Validation Trigger**

* **Purpose:** Prevents an order for a vehicle if its stock quantity is zero.
* **Logic:** Trigger checks the stock before allowing order creation, raising an error for out-of-stock vehicles.

**B. Stock Update on Order Confirmation**

* **Purpose:** Reduces the stock of a vehicle by 1 upon order confirmation.
* **Logic:** When an order status is set to “Confirmed,” vehicle stock is decremented accordingly.

**C. Batch Apex for Order & Stock Integrity**

* **Purpose:** Periodic automated check that updates order status to “Pending” if related vehicle goes out of stock during the lifecycle.
* **Benefit:** Avoids mismatched inventory and open orders for unavailable vehicles.

**4. Real-World Project Walkthrough – Examples**

**Example 1: Automated Dealer Assignment**

* Customer John, located in Hyderabad, orders a Honda. System compares “customer address” to dealer locations and assigns the matching Hyderabad dealer EM, eliminating manual matching and delays.

**Example 2: Stock Block Logic**

* A Honda EV has stock 0. Any new order creation attempt for this vehicle results in an error. This prevents over-selling and keeps inventory data accurate.

**Example 3: Automated Test Drive Reminder**

* Jane books a test drive for July 28. On July 27, she automatically receives a personalized reminder email, enhancing customer engagement and reducing no-show rates.

**5. Conclusion**

The WhatNext Vision Motors Salesforce project transforms mobility management by replacing manual processes with smart, automated logic. Using a robust suite of Salesforce’s no-code and programmatic tools, it delivers real-world impact: right-order fulfillment, instant communication, and error-free management—critical for the evolving automotive sector.

**6. Future Scope**

* **AI-based Dealer Matching:** Further optimize dealer assignment using map APIs and demand forecasting.
* **Advanced Analytics Dashboards:** Predict stock-outs and high-demand vehicle profiles with Salesforce Analytics.
* **Expansion of Service Automation:** Auto-schedule services and maintenance reminders.
* **Customer Experience Enhancements:** Integrate with chatbots for proactive order and test drive support.
* **IoT Integration:** Real-time fleet status updates and vehicle telemetry within the Salesforce platform.