WhatsNext Vision Motors – Shaping the Future of Mobility with Innovation and Excellence

Elevating Customer Experience & Operational Excellence in Automotive Retail

This project demonstrates a Salesforce-powered digital transformation for WhatsNext Vision Motors, a leader in automotive innovation. The solution is designed to streamline operations, automate workflows, and deliver a seamless customer journey from inquiry to delivery.

——————————————————————————————

s.˙•¸’7 **Project Overview**

**WhatsNext Vision Motors utilizes Salesforce to:**

* Establish a centralized system for managing vehicle, dealer, and customer information
* Streamline operational processes through automation of order handling, dealer allocation, and inventory validation
* Deliver real-time analytics to support sales, service, and inventory management teams
* Elevate the customer experience by enabling proactive communication and ensuring transparency

**Strategic Objective:** To foster a seamless, highly efficient, and customer-focused automotive retail ecosystem.

——————————————————————————————

"’虇●虊´ **Objectives**

**The primary objective of developing this CRM solution is to equip WhatsNext Vision Motors with a unified platform capable of managing every facet of the automotive retail lifecycle—from initial customer inquiries through vehicle delivery and post-sales support.** By automating critical business functions and consolidating data, the CRM is designed to enhance customer satisfaction, minimize manual errors, and enable informed, data-driven decision-making. These improvements foster more effective customer management, streamlined booking processes, and heightened operational efficiency, thereby directly supporting business growth and strengthening customer loyalty.——————————————————————————————

# −굎,–¯|⬛– Phase 1: Requirement Analysis & Planning

**Understanding Business Requirements** The Salesforce CRM implementation for WhatsNext Vision Motors addresses critical operational needs, including streamlined management of vehicle inventory, dealer allocation, customer data, and service request tracking. It provides solutions to existing challenges such as manual order handling, limited real-time visibility of stock levels, and fragmented channels of customer communication.

**Defining Project Scope and Objectives** The core project objectives are as follows:

* Centralize vehicle, dealer, and customer information within a unified platform
* Automate dealer assignment and order processing workflows
* Implement mechanisms for real-time inventory validation
* Enable proactive customer notifications and engagement
* Provide comprehensive reporting and analytics capabilities

**Designing the Data Model and Security Architecture** The system architecture comprises custom Salesforce objects tailored for vehicles, dealers, customers, orders, test drives, and service requests. Robust security is enforced through field-level security configurations, user profiles, role hierarchies, and sharing rules, ensuring privacy, access control, and platform compliance.

——————————————————————————————

# ‘\’z Phase 2: Salesforce Development – Backend & Configurations

**Environment Setup and DevOps Workflow** Salesforce sandboxes, integrated version control systems, and deployment pipelines have been established to ensure secure and reliable development, testing, and release of CRM components.

**Customization of Objects, Fields, Validation Rules, and Automation** Custom objects and fields have been configured in alignment with the defined data model. Validation rules are implemented to uphold data integrity. Automation is achieved through a combination of Workflow Rules, Process Builder flows, Flow Builder automations, and Approval Processes—streamlining operational efficiency across key business processes.

**Apex Development: Classes, Triggers, and Asynchronous Processing** Apex triggers are employed for real-time validation of vehicle stock and dynamic dealer assignment. Batch Apex jobs are scheduled to execute nightly bulk updates of inventory and order statuses. Asynchronous Apex methods are leveraged to efficiently handle large data volumes without impacting system performance.

——————————————————————————————

# Q˙.· Phase 3: UI/UX Development & Customization

* **Lightning App Configuration via App Manager** A custom Lightning App has been developed to enhance navigation and deliver an intuitive user experience across the platform interface.
* **Page Layouts and Dynamic Forms** Each object is equipped with tailored page layouts and dynamic forms to display context-relevant data, ensuring clarity and streamlined user workflows.
* **User Management Framework** User profiles, roles, and permission sets are strategically configured to manage access levels and ensure alignment with business roles and responsibilities.
* **Reports and Dashboards** Real-time dashboards and reports are implemented to provide actionable insights into sales trends, inventory movement, and service-related metrics.
* **Lightning Web Components (LWC)** Where applicable, custom LWCs have been introduced to enrich interactivity, delivering a responsive and component-driven user experience.
* **Lightning Pages** Modular Lightning Pages are configured to simplify navigation, support personalized workflows, and unify user interactions across relevant objects.

——————————————————————————————

# ³⬛– Phase 4: Data Migration, Testing & Security

* **Data Loading Strategy** Legacy data was successfully migrated using Salesforce's Data Import Wizard and Data Loader tools, ensuring accurate and efficient data population across custom objects.
* **Data Quality and Audit Mechanisms** Field History Tracking, Duplicate Rules, and Matching Rules have been enabled for key objects to maintain high data integrity, enable audit trails, and prevent redundant records.
* **Access Control Framework** A comprehensive security model has been implemented through the configuration of Profiles, Roles, Role Hierarchies, Permission Sets, and Sharing Rules—ensuring precise control over data access and compliance with organizational policies.
* **Apex Test Class Development** Dedicated test classes have been created for all Apex triggers and classes to uphold code quality standards, meet code coverage requirements, and support future enhancements.
* **Testing Approach and Documentation** Structured test cases were designed to validate all major features including booking creation, approval workflows, automated task generation, flows, and triggers. Input and output screenshots have been captured and documented for each test scenario to ensure traceability and facilitate future QA cycles.

# •.s’7¸˙ Phase 5: Deployment, Documentation & Maintenance

* **Deployment Strategy** Application components are promoted from sandbox to production using Salesforce Change Sets, with version control systems employed to track and audit configuration and code changes throughout the release lifecycle.
* **Maintenance and Monitoring Protocols** Ongoing system health is ensured through regular monitoring activities, scheduled data backups, and structured feedback collection from end users to inform future enhancements.
* **Troubleshooting and Support Approach** Common issues and corresponding resolution steps are thoroughly documented to facilitate timely support, reduce downtime, and enable efficient issue resolution by administrators and support teams.

k.×˙´굯군구 **Data Model Highlights**

Custom Objects:

## OBJECT NAME PURPOSE RELATIONSHIPS

|  |  |  |
| --- | --- | --- |
| **VEHICLE\_\_C** | Stores vehicle details | Related to Dealer & Orders |
| **VEHICLE\_DEALER\_\_C** | Stores 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 service requests | Related to Customer & Vehicle |

——————————————————————————————

# °譁譃 Fields & Relationships

⬛1 Vehicle c

* Vehicle\_Name c (Text)
* Vehicle\_Model c (Picklist: Sedan, SUV, EV, etc.)
* Stock\_Quantity c (Number)
* Price c (Currency)
* Dealer c (Lookup to Dealer c)
* Status c (Picklist: Available, Out of Stock, Discontinued)

³⬛ Vehicle\_Dealer c

* Dealer\_Name c (Text)
* Dealer\_Location c (Text)
* Dealer\_Code c (Auto Number)
* Phone c (Phone)
* Email c (Email)

³⬛ Vehicle\_Order c

* Customer c (Lookup to Customer c)
* Vehicle c (Lookup to Vehicle c)
* Order\_Date c (Date)
* Status c (Picklist: Pending, Confirmed, Delivered, Canceled)

G⬛ Vehicle\_Customer c

* Customer\_Name c (Text)
* Email c (Email)
* Phone c (Phone)
* Address c (Text)
* Preferred\_Vehicle\_Type c (Picklist: Sedan, SUV, EV, etc.)

⬛³ Vehicle\_Test\_Drive c

* Customer c (Lookup to Customer c)
* Vehicle c (Lookup to Vehicle c)
* Test\_Drive\_Date c (Date)
* Status c (Picklist: Scheduled, Completed, Canceled)

O⬛ Vehicle\_Service\_Request c

* Customer c (Lookup to Customer c)
* Vehicle c (Lookup to Vehicle c)
* Service\_Date c (Date)
* Issue\_Description c (Text)
* Status c (Picklist: Requested, In Progress, Completed)

——————————————————————————————

# ☼◦O Technologies & Tools Used

## TOOL / FEATURE PURPOSE

|  |  |
| --- | --- |
| **SALESFORCE LIGHTNING APP** | Custom UI and layout creation |
| **RECORD-TRIGGERED FLOWS** | Real-time automation (dealer assignment, emails) |
| **APEX TRIGGERS** | Custom logic (stock validation, assignment) |
| **BATCH APEX** | Nightly bulk order/status updates |
| **VALIDATION RULES** | Data integrity at the UI level |
| **SCHEDULED APEX** | Automate nightly updates for inventory/orders |

——————————————————————————————

^` **Testing Approach**

* Comprehensive test cases were developed to validate all critical functionalities, including booking creation, approval workflows, automated task generation, record-triggered flows, and Apex triggers.
* Apex test classes were implemented to ensure sufficient code coverage, functional reliability, and adherence to Salesforce development standards.
* A combination of manual and automated testing methodologies was applied across flows, reports, and dashboards to ensure accurate data representation and seamless user interaction.

——————————————————————————————

)궬•¸궨궩괚‘) **Screenshots**

* Folder Structure for Screenshots:

WhatsNext Vision Motors/

├── Data Management-Objects/

├── Data Management-Tabs/

├── Data Management-App Manager/

├── Data Management-Fields/

├── Automation-Flows/

└── Apex and Batch Class/

* For each Salesforce feature (objects, flows, validation rules, etc.), relevant screenshots are provided in the respective folders.
* Each automation (validation rule, approval process, flow) is briefly described in the documentation.

——————————————————————————————

º,t **Security**

* Profiles, roles, role hierarchy, permission sets, and sharing rules are implemented to ensure data security and proper access control.
* Field history tracking, duplicate rules, and matching rules are enabled for data quality.

——————————————————————————————

.¸•’7˙s **Future Enhancements**

* Integration of AI-powered chatbots for customer support
* Predictive analytics for sales and inventory management
* Enhanced mobile experience for field agents

——————————————————————————————

µ–'–‘궝\_lµr궘\_ **What I Learned**

* Designing scalable, normalized data models in Salesforce
* Automating business logic with Flows and Apex
* Ensuring data consistency with validation rules and error handling
* Building modular Lightning apps for streamlined user experience
* Implementing batch and asynchronous Apex operations

——————————————————————————————

¸,ˆ\*˙ˆ†˙^-通逛.'-z **Author**

Anushka Jat

Lakshmi Narain College Of Technology

B.Tech in Computer Science and engineering.

Email: [jatanushka04@gmail.com](mailto:jatanushka04@gmail.com)

——————————————————————————————

# 꺪³ Project Links

* \_.蘄蘇 Demo Video: Uploaded the link at the skillwallet Salesforce.

——————————————————————————————

‘괚) **License**

This project is developed for educational and portfolio purposes. Feel free to fork, adapt, or reference it for learning.

——————————————————————————————

**Conclusion** The WhatsNext Vision Motors CRM initiative effectively showcases the transformative potential of Salesforce within the automotive retail sector. By automating core workflows, consolidating operational data, and enhancing the overall user experience, the solution delivers measurable business impact. It strengthens customer engagement, improves process efficiency, and establishes a scalable foundation for continuous innovation and future technology enhancements.