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

**Project Overview:**

WhatNext Vision Motors is an inventive project dedicated to revolutionizing mobility in the future through the integration of state-of-the-art technologies, environmentally friendly procedures, and user-centred design concepts. The goal of this project is to create environmentally conscious and reasonably priced next-generation mobility solutions, such as electric vehicles, autonomous systems, and intelligent transport infrastructures. The project's main goal is to revolutionize the movement of people and goods by utilizing innovation, superior engineering, and a dedication to sustainability.

**Objectives:**

The WhatNext Vision Motors project's main goal is to transform mobility in the future by creating cutting-edge, clever, and environmentally responsible transportation options. By lowering carbon emissions and reliance on fossil fuels, this project seeks to design and manufacture cutting-edge electric and hybrid cars that not only satisfy contemporary transportation demands but also support environmental sustainability. Integrating cutting-edge technologies like artificial intelligence, the Internet of Things (IoT), and autonomous driving systems is a major objective in order to improve user experience, efficiency, and safety. The project also aims to advance smart mobility by using sustainable materials, renewable energy sources, and data-driven insights.

**Phase 1: Requirement Analysis & Planning**

* **Understanding Business Requirements:**
  + Order issues and manual dealer assignment cause delays for customers.
  + Customers are frequently unhappy when orders are placed for vehicles that are out of stock.
  + Manual processes that are redundant are a strain for the staff.
* **Defining Project Scope and Objectives:**
* Create a system that verifies stock before placing an order.
* Use geolocation to automatically assign the closest dealer.
* Order tracking in real time with Confirmed/Pending status indicators.
* Notify customers with order updates and test drive dates.
* **Design Model and Security Model :**
* Objects : Vehicle\_\_c, Dealer\_\_c, Order\_\_c, and Customer\_\_c
* Role-based Access Profiles and Permission Sets
* Manager-Staff Data Visibility Role Hierarchy
* Sharing Rules for teamwork and OWD (Private for Orders)

**Phase 2:Salesforce Development - Backend & Configurations**

* **Setup environment & DevOps workflow :**
* Development Dev Sandbox
* Change Sets for Deployment
* Using Git for Apex Classes for version control
* **Backend Configurations :**
* Custom Objects : Order\_\_c, Dealer\_\_c, and Vehicle\_\_c
* Validation Rules: Avoid placing an order for a vehicle.If Vehicle.Stock=0
* Tools for Automation:  
  Flows: Assignment of auto-dealers  
  Process Builder: Send out reminder emails  
  Approval Procedure: To approve an order based on value
* **Apex Development :**
* Apex Triggers:

When an order is created, verify the stock and assign a dealer.

* Pattern for Trigger Handlers: Adaptable and modular
* Apex Asynchronous:  
  Update the stock and bulk order statuses using Batch Apex.

**Phase 3:UI/UX Development & Customization**

* **Lightning App setup through App Manager :**

Constructed with "Vision Motors CRM" App Manager

* **Page Layouts, Dynamic Forms :**

Custom layouts for each profile (Sales Rep vs. Manager), conditional field visibility for order fields dependent on status

* **User Management :**

Permission Sets: Apex Access, Record Visibility; Profiles: Sales User, Inventory Manager

* **Reports and Dashboards :**

Reports: Stock Summary, Dealer Performance, and Daily Orders  
Dashboards: Test Drive Trends, Order Funnel

* **Lightning Pages & LWC :**

Lightning Record Pages for Vehicles and Orders: Phase 1 (future scope) did not incorporate LWC

**Phase 4: Data Migration, Testing & Security**

* **Data Loading :**

Tool Used: Data Import Wizard for first load Bulk imports of dealer and vehicle data

* **Field history Tracking & Duplicate Rules :**

Email-based deduplication for customers is enabled for Order\_\_c.Status and Vehicle\_\_c.Stock Matching Rules.

* **Security Settings :**

Roles and Profiles: Specified by Department and Duties  
Role Structure: Sales Executive > Manager  
Permission Sets: To grant administrators access to reports and automation  
Rules for Sharing: Depending on the branch or location

* **Test Class Creation :**

Coverage: >85% Test cases for batch tasks, triggers, and flows

* **Test Case Documentation :**

Test of booking creation using screenshots of the input and output  
Validation of the dealer assignment flow  
Procedure for approval: Submitted > Flow Accepted  
Automated email reminder: examined using images and debug logs

**Phase 5:Deployment, Documentation & Maintenance**

* **Deployment Strategy :**

Tools Used : Change sets

Pre-deployment: Sandbox UAT validation  
Post-deployment: Production-level smoke testing

* **Maintenance & Monitoring :**

Review of weekly error logs  
Admin reports on stock sync status, batch errors, and flow versions that are monitored and deprecated as necessary

* **Troubleshooting Approach :**
* Apex Debug Logs for mistakes in the code  
  Error in Flow Alerts regarding flow issues  
  Periodically, Salesforce Health Check is used.

**Conclusion :**

WhatNext Vision Motors is a progressive project that represents the intelligent and sustainable mobility of the future. In addition to tackling the urgent issues of urban congestion and environmental impact, the project reimagines how people and goods move in a world that is changing quickly by fusing innovation and excellence. WhatNext Vision Motors is positioned to spearhead the automotive industry's transformation through the creation of cutting-edge electric vehicles, the incorporation of smart technologies, and a dedication to environmentally responsible practices. It is a daring step in building a transportation ecosystem that is safer, cleaner, and more effective for future generations.