# Phase 6: Advanced Lightning Experience Development for WhatNext Vision Motors

Phase 6 of the WhatNext Vision Motors Salesforce CRM project focuses on advanced customization and development within the Lightning Experience. This phase leverages Lightning App Builder, Lightning Web Components (LWC), and Apex integration to deliver a seamless, modern, and responsive user interface tailored to business needs.

## 1. Lightning App Builder

Lightning App Builder is used to create and configure custom applications in Salesforce. For this project:  
- Custom Lightning Apps provide dedicated access to Vehicle, Dealer, Orders, and Service Requests.  
- Drag-and-drop components streamline layout design.  
- Different apps are tailored for Sales Managers, Dealer Executives, and Service Agents.

## 2. Record Pages

Record Pages were customized to display relevant information for each object. For example:  
- Vehicle Record Page shows price, availability, and related dealer.  
- Order Record Page highlights order status, customer details, and vehicle info.  
- Test Drive Record Page includes scheduled date, customer details, and follow-up actions.

## 3. Tabs

Custom tabs were created to improve navigation. Each tab is linked to a custom object or Lightning page, enabling quick access to Vehicles, Orders, Test Drives, and Service Requests.

## 4. Home Page Layouts

Home Page layouts were configured for different user profiles:  
- Sales Manager: Dashboard with KPIs and quick links to orders.  
- Dealer Executive: Pending order list and service summaries.  
- Service Agent: Open service requests and upcoming test drives.

## 5. Utility Bar

The Utility Bar provides persistent tools across the app. In this project:  
- Quick Notes for agents during calls.  
- Recent Items for fast navigation.  
- Embedded Report Charts for real-time performance insights.

## 6. LWC (Lightning Web Components)

LWCs were developed for dynamic UI needs, offering faster rendering and reusable code. Example components include:  
- Vehicle Availability Checker.  
- Order Summary Card.  
- Test Drive Scheduler with interactive calendar.

## 7. Apex with LWC

Apex classes were integrated with LWCs for complex business logic. For instance:  
- Apex methods fetch vehicle stock levels.  
- Orders are validated and processed using Apex services.  
- Service request updates are pushed to LWCs in real time.

## 8. Events in LWC

Events were implemented for communication between components:  
- Custom Events notify parent components when a test drive is scheduled.  
- Application Events broadcast changes like order updates.  
- Lightning Message Service enables cross-component communication.

## 9. Wire Adapters

Wire adapters were used to connect LWCs with Salesforce data declaratively. Examples include:  
- @wire(getRecord) to fetch customer details.  
- @wire(getListUi) for displaying available vehicles.  
- Reactive updates ensure that data changes reflect immediately in the UI.

## 10. Imperative Apex Calls

Imperative Apex calls were used when fine-grained control was required over server interactions. For example:  
- Manually fetching available dealers.  
- Submitting vehicle orders and handling success/error responses.  
- Executing bulk updates of service requests.

## 11. Navigation Service

The Lightning Navigation Service was used to guide users across pages. Key use cases include:  
- Redirecting from an Order record to the associated Vehicle record.  
- Navigating to dashboards from utility bar shortcuts.  
- Linking custom LWC buttons to Salesforce standard pages.

## Conclusion

Phase 6 enriches the Salesforce CRM for WhatNext Vision Motors with an advanced Lightning Experience. Through customized apps, record pages, LWCs, and Apex integrations, users gain a more intuitive, responsive, and powerful interface. This phase ensures the system is not only functional but also highly engaging for daily operations.