Phase 6: User Interface Development

Project: Smart Property Portal – Real Estate Customer Engagement & Lead Conversion System

1. Overview

User Interface (UI) development focused on creating an intuitive, mobile-friendly, and efficient experience for Sales Agents, Property Managers, and Sales Managers. We used **Lightning App Builder**, **Lightning Record Pages**, and **Lightning Web Components (LWC)** to deliver responsive interfaces that integrate seamlessly with Salesforce data and automation.

2. Lightning App Builder & Record Pages

Key elements implemented with Lightning App Builder:

- **Custom Lightning App:** “Smart Property Portal” with dedicated navigation for Properties, Visits, and Deals.
- **Record Pages:** Tailored record pages for Property__c, Visit__c, and Deal__c to present relevant information in a logical layout.
- **Dynamic Components:** Components displayed conditionally based on record type, user role, or deal status for cleaner UI.

Using custom record pages improved agent efficiency by surfacing only the most relevant actions and information for each role.

3. Tabs, Home Page, and Utility Bar

To improve navigation and quick access:

- **Custom Tabs:** Added tabs for Property__c, Visit__c, Deal__c, and a dashboard tab.
- **Home Page:** Agent home page displays upcoming visits, high-priority leads, and assigned tasks.
- **Utility Bar:** Quick actions like “Schedule Visit”, “Create Lead”, and “Log Visit Feedback” were added to streamline common tasks.

These elements reduced clicks and helped agents focus on selling activities.

4. Lightning Web Components (LWC)

LWCs were developed for interactive and reusable UI pieces:

- **Property Card Component:** Displays property photo, price, key attributes, and a quick action to schedule a visit.
- **Schedule Visit Component:** Modal-driven LWC to pick date/time, select agent, and send confirmation.
- **Activity Timeline Component:** Shows customer interactions, emails, and visit history in a chronological view.

LWCs were designed to be lightweight, responsive, and reusable across record pages and Lightning App Builder.

5. Events & Wire Adapters

We used modern LWC patterns to connect UI with data and actions:

- **Wire Adapters:** Used to fetch record data, lists of properties, and related visits efficiently.
- **Custom Events:** Emitted from child components (e.g., Property Card) to parent components to handle scheduling or navigation.
- **Imperative Apex Calls:** Used for complex search filters and bulk actions that require server-side logic.

These patterns ensured a performant and reactive UI experience.

6. Mobile Responsiveness & Accessibility

The UI was optimized for mobile use and accessibility:

- **Salesforce Mobile Ready:** All LWCs and record pages were tested in Salesforce mobile app to ensure usability on smaller screens.
- **Responsive Layouts:** Grid-based layouts and flexible components adapt to different screen sizes.
- **Accessibility:** ARIA labels, keyboard navigation support, and contrast checks were included to comply with accessibility best practices.

Mobile optimization allows agents to act quickly during site visits and field interactions.

7. Testing & Debugging

UI components were tested thoroughly:

- **Unit Testing:** Jest tests for LWC components to validate behavior and edge cases.
- **Manual Testing:** Cross-browser and mobile testing to ensure consistent rendering.
- **Performance Profiling:** Monitored component load times and optimized heavy operations with pagination and lazy loading.

Robust testing ensured a reliable and maintainable UI.

8. Summary

Phase 6 delivered a polished, responsive, and role-focused user interface:

- Built a **custom Lightning App** and tailored **record pages**.
- Implemented **LWCs** for property cards, scheduling, and activity timelines.
- Used **wire adapters, events, and imperative Apex** to connect UI with backend services.
- Ensured **mobile responsiveness** and **accessibility**, and validated through testing.

This UI enables agents to operate efficiently, improving lead response times and customer engagement.