Phase 6: User Interface (UI) Development Name: Alekhya Nam

Overview Phase 6 focuses on building the interactive User Interface of the Smart Manufacturing Portal. This phase connects backend logic (Apex classes) with Lightning Web Components (LWCs) so that Users, Managers, and Account-related roles can interact with the portal efficiently.

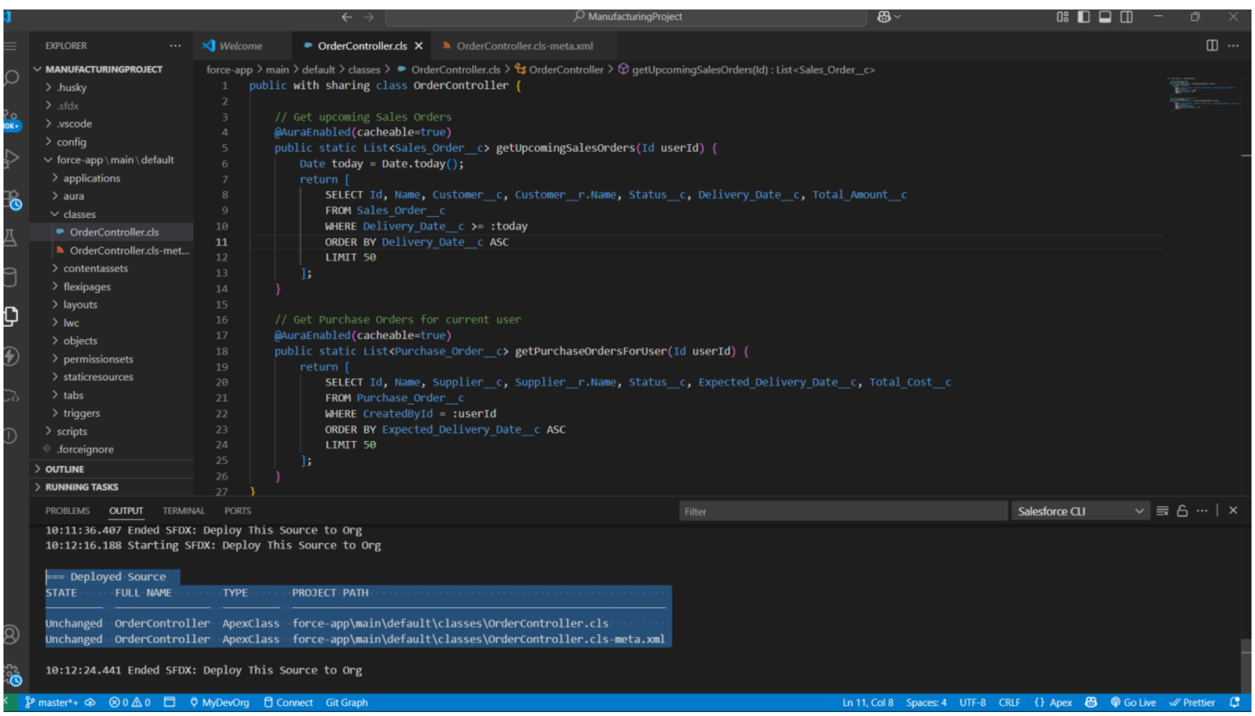
Key Highlights: - Display upcoming Sales Orders and Purchase Orders. - Allow creation of new Sales Orders directly from Account pages. - Provide a global view of upcoming orders on the Home Page.

Step 1: Apex Controller – OrderController.cls Purpose & Use: The Apex controller acts as the backend logic for fetching order data. It provides methods that LWCs call to retrieve upcoming Sales Orders and Purchase Orders.

Key Functionalities: 1. getUpcomingSalesOrders(userId) – Returns upcoming Sales Orders for a user in the future, limited to 50. 2. getPurchaseOrdersForUser(userId) – Returns Purchase Orders created by the logged-in user, limited to 50.

How it's used: - The orderList component uses these methods to dynamically display upcoming orders. - When a user opens their Account record page or Home Page, the Apex controller fetches real-time data from Salesforce.

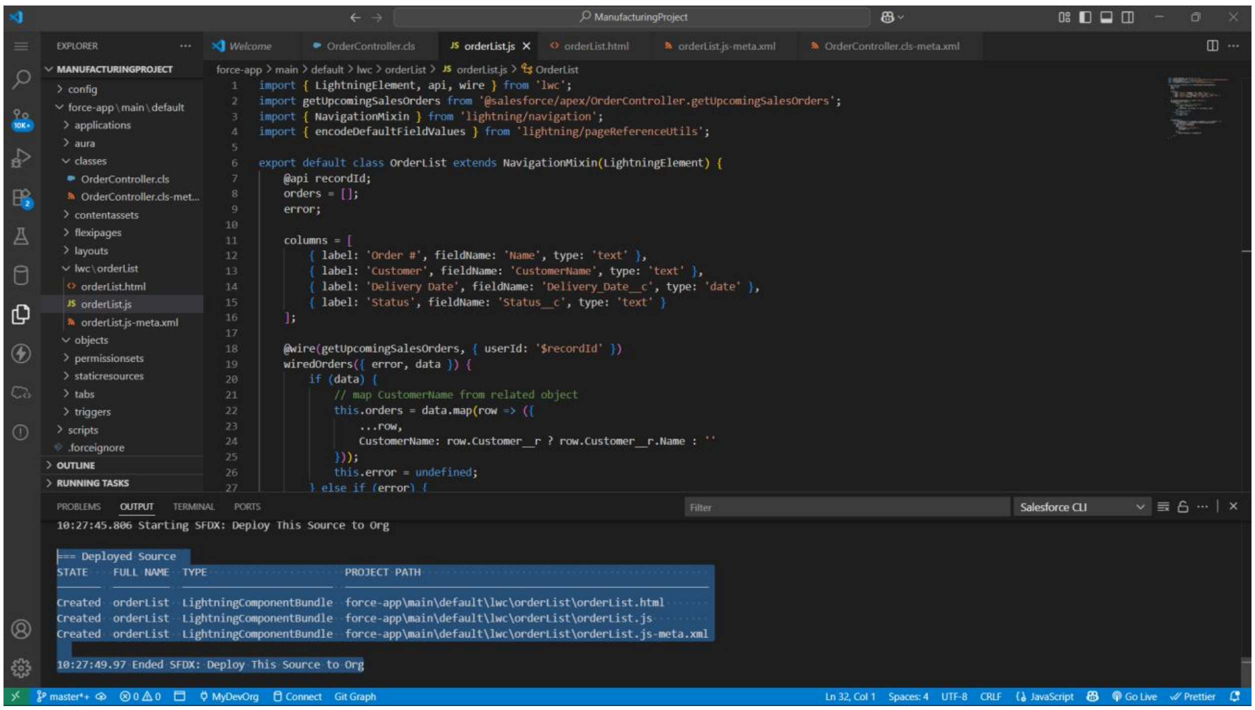
Deployment: - Deployed from VS Code using SFDX: Deploy Source to Org.



Step 2: LWC – orderList Purpose & Use: This component shows a list of Sales Orders and Purchase Orders in a datatable and allows users to create new orders directly from the page. It is used in Account record pages, Manager views, and Home Pages.

Features: - Displays columns like Order Name, Customer / Supplier, Status, Delivery / Expected Date, Total Amount / Cost. - Shows error messages if data cannot be fetched. - New Order button opens the Sales Order creation page with default values prefilled when applicable.

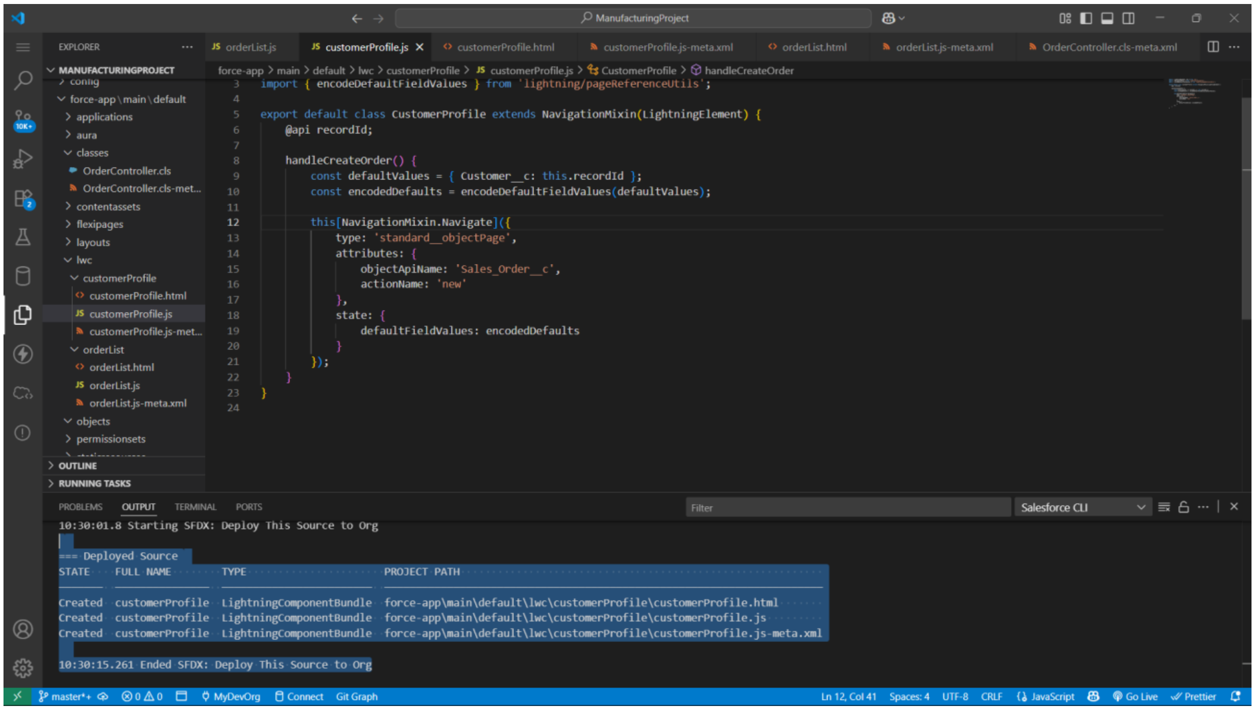
How it works: - Calls the OrderController Apex methods using @wire. - Formats returned data for the datatable. - Uses NavigationMixin and encodeDefaultFieldValues to prefill fields in the new order modal.



Step 3: LWC – customerProfile Purpose & Use: The customerProfile component is a quick action panel on the Account page. It allows users to create a new Sales Order for the current Account without navigating away.

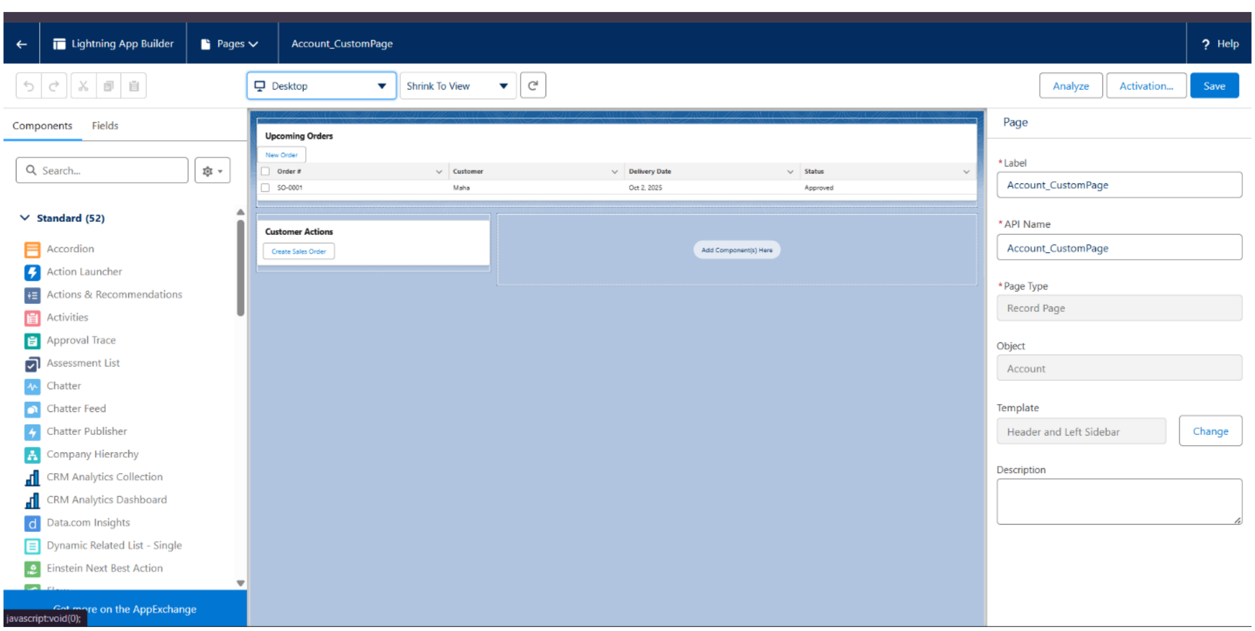
Features: - Displays a Create New Sales Order button. - Prefills the Customer field in the new order modal.

How it works: - Appears in the sidebar of Account record pages. - Clicking the button opens the new Sales Order creation page with Customer prefilled.



Step 4: Adding Components to Pages Purpose & Use: The LWCs are added to Salesforce pages using Lightning App Builder, so users can see and interact with them directly on the record pages or Home Page.

Steps & Usage: 1. Account Record Page – Sidebar: customerProfile, Main region: orderList. 2. Home Page / Manager Page – Main region: orderList global view.



Step 5: Testing the UI Purpose & Use: Ensures all components work as intended and users can interact with orders efficiently.

Testing Steps: 1. Open an Account record → verify customerProfile sidebar appears → click Create New Sales Order → verify Customer is prefilled. 2. Open an Account record → verify orderList in the main region shows upcoming Sales Orders / Purchase Orders. 3. Open the Home Page → verify orderList shows global upcoming orders. 4. Click New Order button → verify default field values prefill correctly. 5. (Optional) Error Handling: Temporarily modify Apex to throw an exception → verify LWC shows a friendly error message.