

Phase 7 Report: Integration & External Access

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Overview

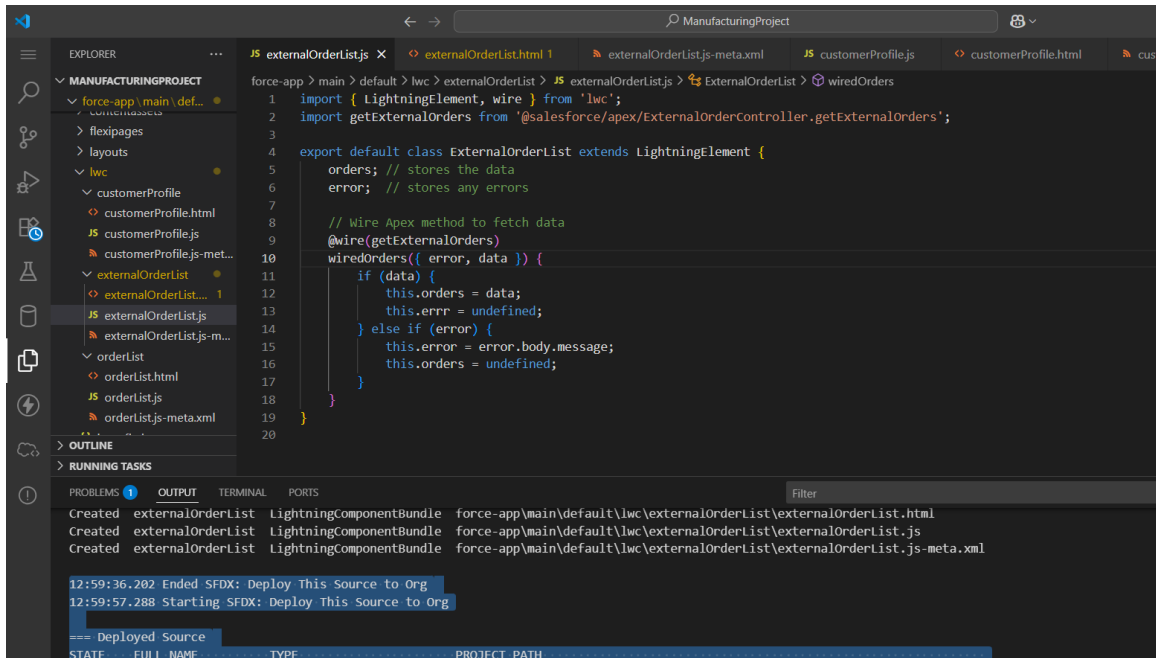
Phase 7 focuses on integrating external data sources with Salesforce and enabling secure external access for the Smart Manufacturing Portal. This ensures the portal connects with external APIs (like supplier or logistics) while maintaining security and performance.

Key Tasks and Enhancements

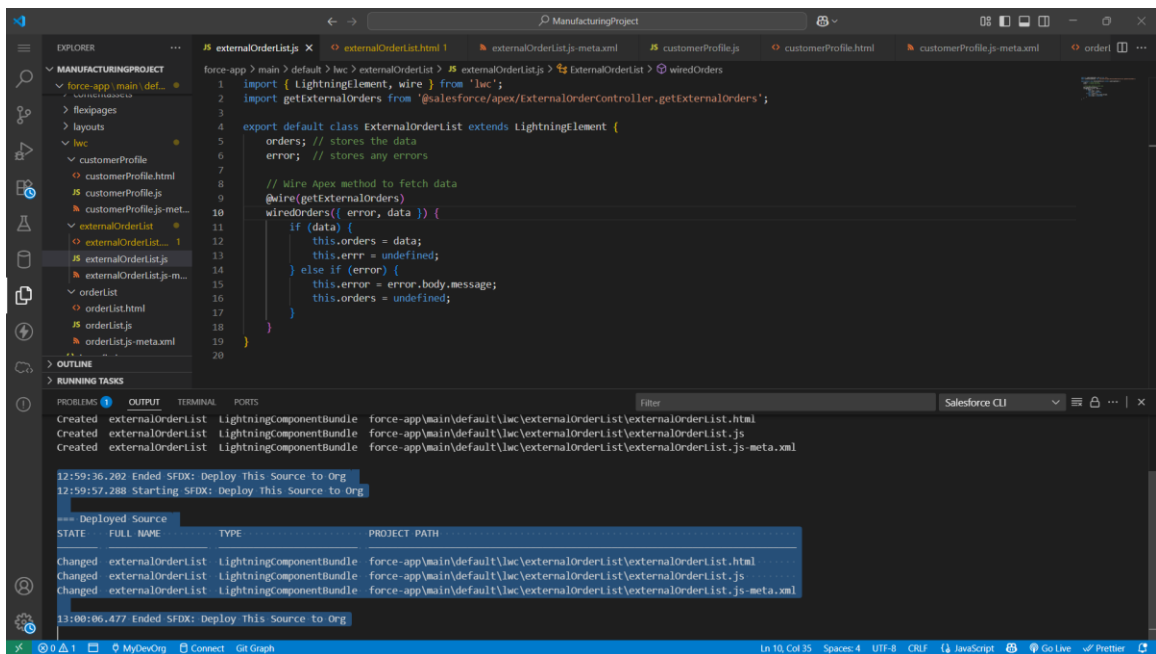
- External API Integration - Integrated Salesforce with JSONPlaceholder API to fetch external order data dynamically. Created Apex controller (ExternalOrderController) to handle callouts and process API responses. Enabled Remote Site Settings for secure API access.
- External Data Synchronization - Fetched external orders and displayed them in LWC tables with sorting, pagination, and search features.
- Secure External Access - Configured Remote Site Settings for authorized API endpoints and ensured HTTPS access.
- Integration with Salesforce Objects - Connected external orders LWC with Salesforce objects (Sales Orders). Users can view external order information and optionally create new Salesforce records.
- Enhanced UI/UX - Added responsive layouts for external data display, applied custom CSS, and ensured consistent branding.
- Tools & Technologies Used - Lightning Web Components (LWC), Apex Controllers, Salesforce Remote Site Settings, JSONPlaceholder API, Custom CSS & SLDS.

Implementation Steps

1. Setup Remote Site: Go to Setup → Remote Site Settings → Add:
<https://jsonplaceholder.typicode.com>
2. Create Apex Callout: Apex class ExternalOrderController created for GET callout to fetch orders.



3. Test Apex Callout: Created a mock HTTP response for testing in ExternalOrderControllerTest class.



4. Create LWC externalOrderList: Displays external orders in a table with optional 'New Order' button.
5. Add LWC to Page: Used Lightning App Builder, added externalOrderList to Account Record Page main region, activated for org default.
6. Testing: Verified table displays data from JSONPlaceholder, checked New Order navigation, tested error handling by changing endpoint.

Lightning App BuilderPagesAccount_CustomPageHelp

DesktopShrink To View

AnalyzeActivation...Save

ComponentsFields

Search...

Standard (52)

Custom (3)

- customerProfile
- externalOrderList
- orderList

Custom - Managed (0)

No components available.

Upcoming Orders

New Order

Order Name	Customer	Status	Delivery Date	Total Amount
SO-0001		Approved	Oct 2, 2025	\$1,200.00

Customer Actions

Create Sales Order

External Orders

Title	Body
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Manufacturing & S...

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Search...

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