Project Title: Sales Performance Reporting
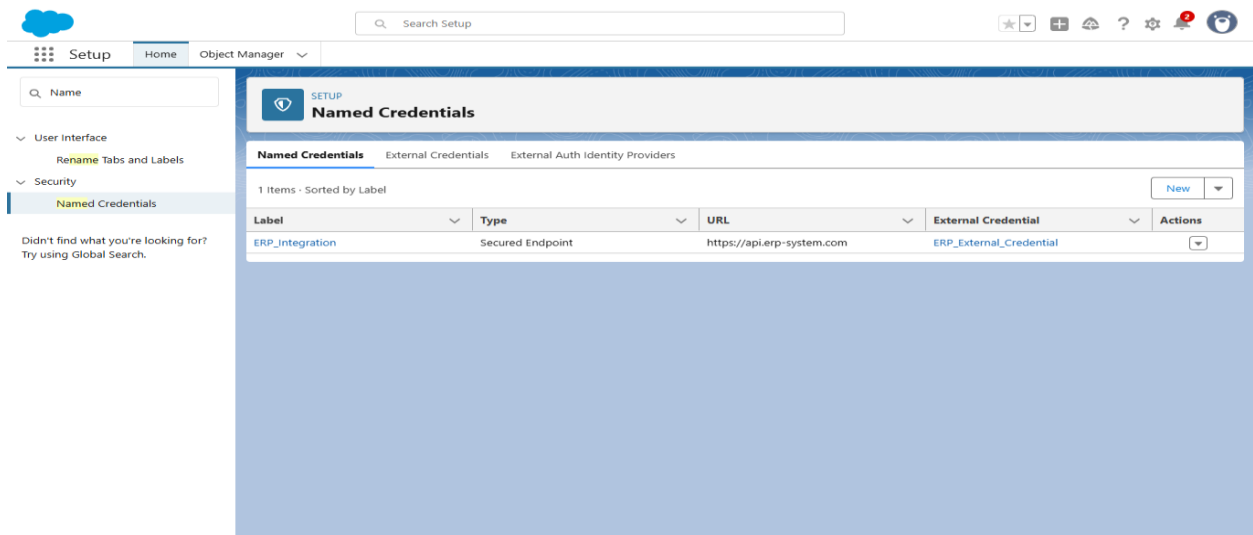
Phase 7: Integration & External Access

Objective:
The goal of this phase was to extend Salesforce's capability by integrating it with external systems (e.g., ERP/Finance system) to enable **real-time data sharing, secure communication, and external access**. This ensures that sales teams in Salesforce always have updated information without manual uploads.

---

1. Named Credentials & External Credentials

- Created an **External Credential** named ERP_External_Credential.
- Configured authentication protocol (Password Authentication for demo).
- Added a **Named Principal (ERP_User)** with username/password details.
- Assigned access via a Permission Set (ERP_Integration_Access) so only authorized users can use it.
- Created a **Named Credential** ERP_Integration pointing to the external system's API base URL.
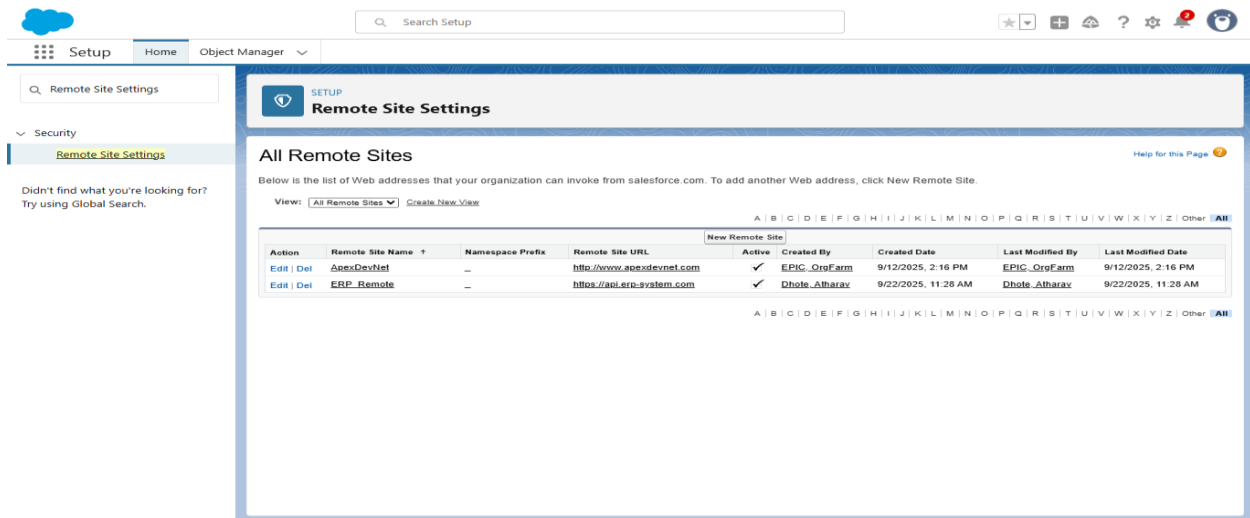

---

2. Remote Site Settings

- Configured **Remote Site Setting** ERP_Remote with the same external API URL.
- Ensures Salesforce can send callouts to trusted endpoints.

3. Apex Callouts

- Created an **Apex class ERPIntegration.cls** to fetch ERP data using Named Credential.
- Example method getERPData() performs an HTTP GET callout to fetch data.
- Response data is returned as JSON for use in LWCs.
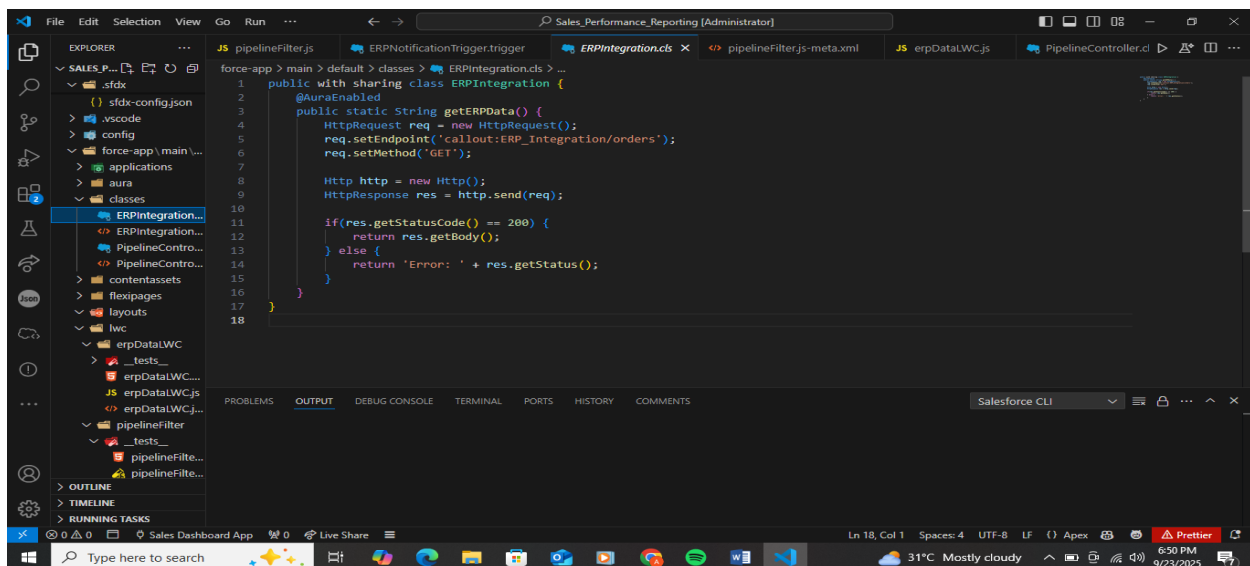
4. Lightning Web Component (ERP Data LWC)

- Built a custom **LWC** erpDataLWC.
- Integrated it with the Apex callout method to display ERP order data inside Salesforce.
- Added the component into **Sales Dashboard App** using Lightning App Builder.
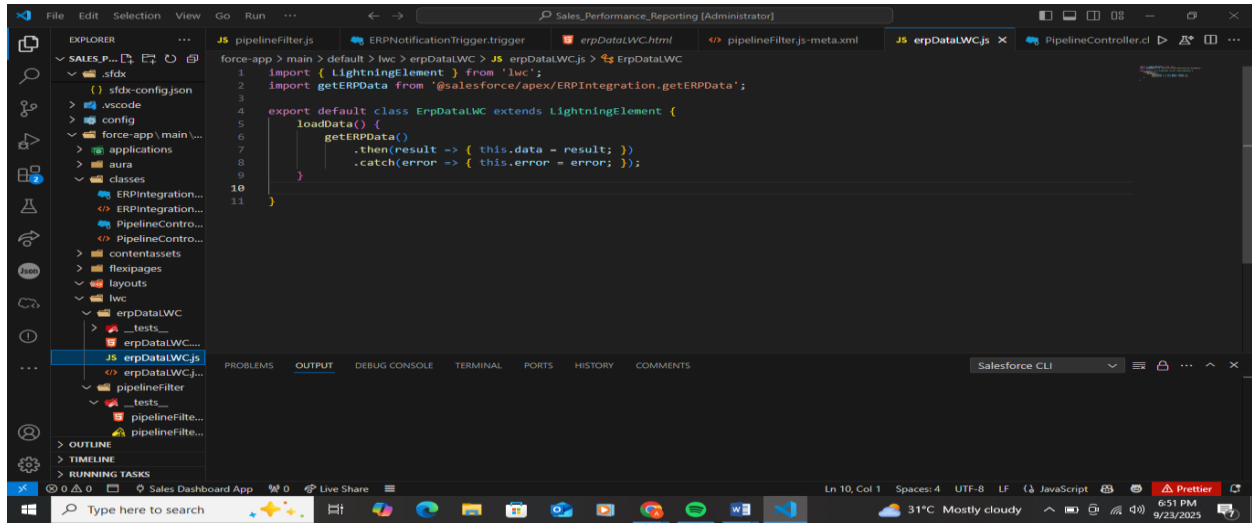
5. Platform Events (Real-Time Updates)

- Created **Platform Event** ERP_Notification__e.
- Added fields: OrderId, Status, Amount.
- Published test events using **Workbench** (REST Explorer) and **Anonymous Apex**.
- Subscribed to events via a **Flow** and an **Apex Trigger**.
  - Flow creates a Task when an ERP update is received.
  - Apex Trigger logs details into Salesforce for tracking.

---

6. Change Data Capture (CDC)

- Enabled CDC for the **Opportunity** object.
- External systems can subscribe via Salesforce Streaming API to receive updates whenever Opportunities change.