Phase 7: Integration & External Access

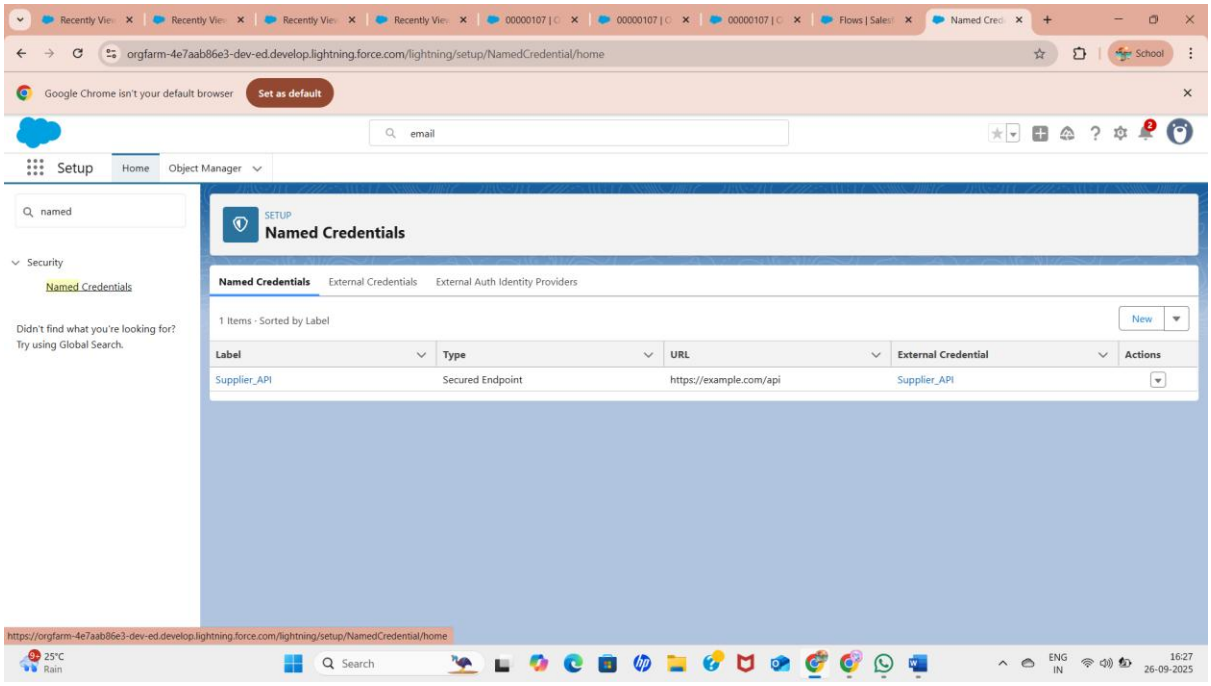
This phase covers how Salesforce interacts with external systems, APIs, and manages secure access.

1. Named Credentials

Purpose: Simplifies authentication when connecting to external systems.

Steps to Create:

1. Go to **Setup → Named Credentials → New Named Credential**.
2. Fill in:
    - **Label:** e.g., ExternalAPI_Credential
    - **Name (API Name):** ExternalAPI_Credential
    - **URL:** Base URL of external system, e.g., https://api.example.com
    - **Authentication:** Choose OAuth 2.0, Password, or External Credential
    - **Callout Options:** Enable "Generate Authorization Header" if required



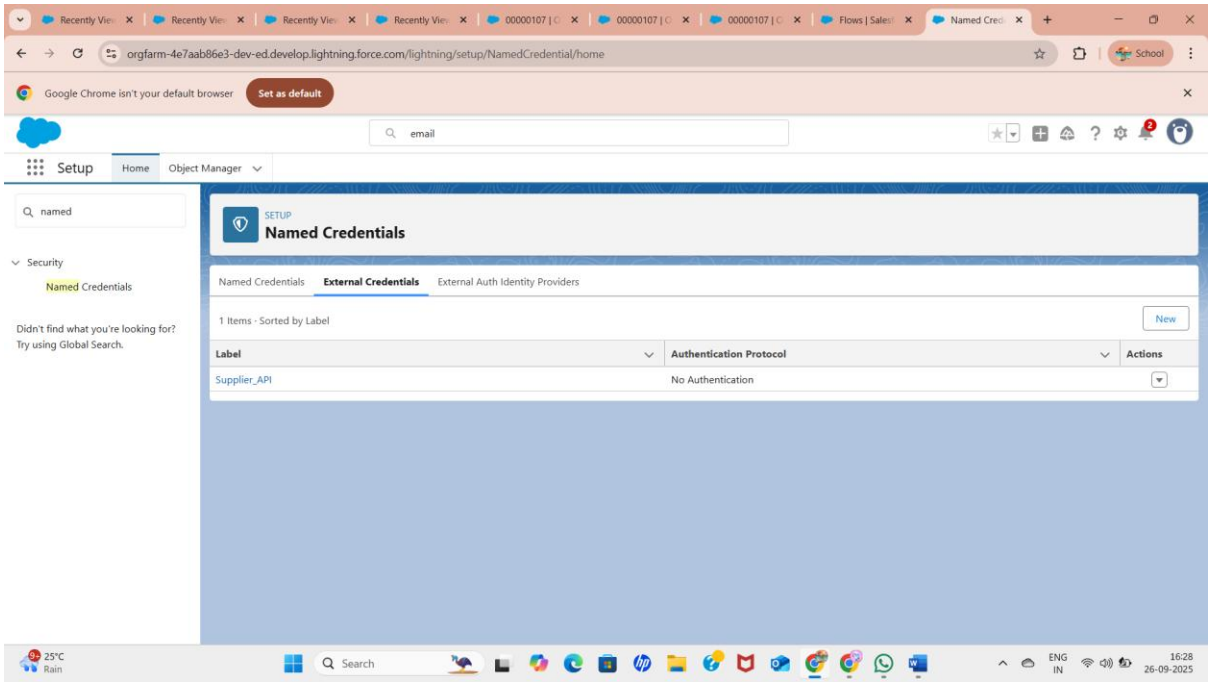
2. External Services

Purpose: Connect Salesforce to external APIs declaratively.

Steps:

- **Name:** InventoryAPI
- **Schema URL or Named Credential:** Connect via previously created Named Credential

2. Salesforce automatically generates Apex actions for flow use.

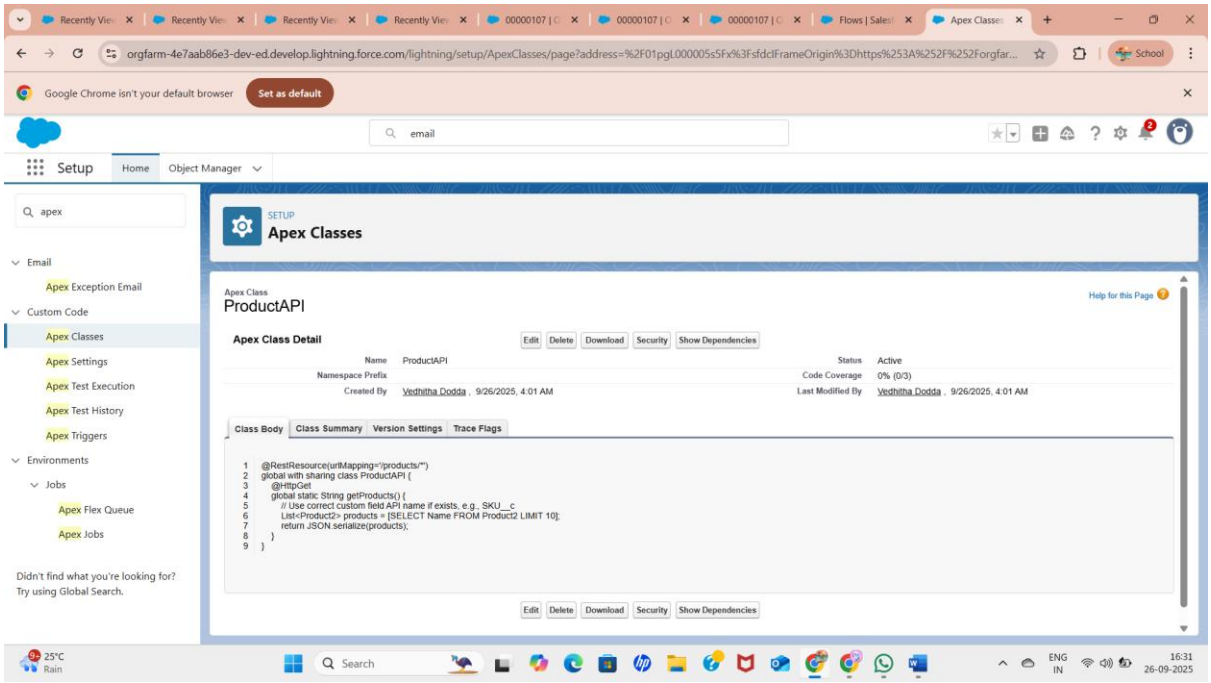


3. Web Services (REST/SOAP)

Purpose: Salesforce can both call external APIs and expose its own data via REST/SOAP.

Key Points:

- **REST:** Lightweight, JSON-based, used for modern integrations
- **SOAP:** XML-based, often for enterprise systems
- **Setup:** Setup → Apex Classes → @RestResource for REST endpoints



4. Callouts

Purpose: Invoke external services from Apex or Flow.

Steps:

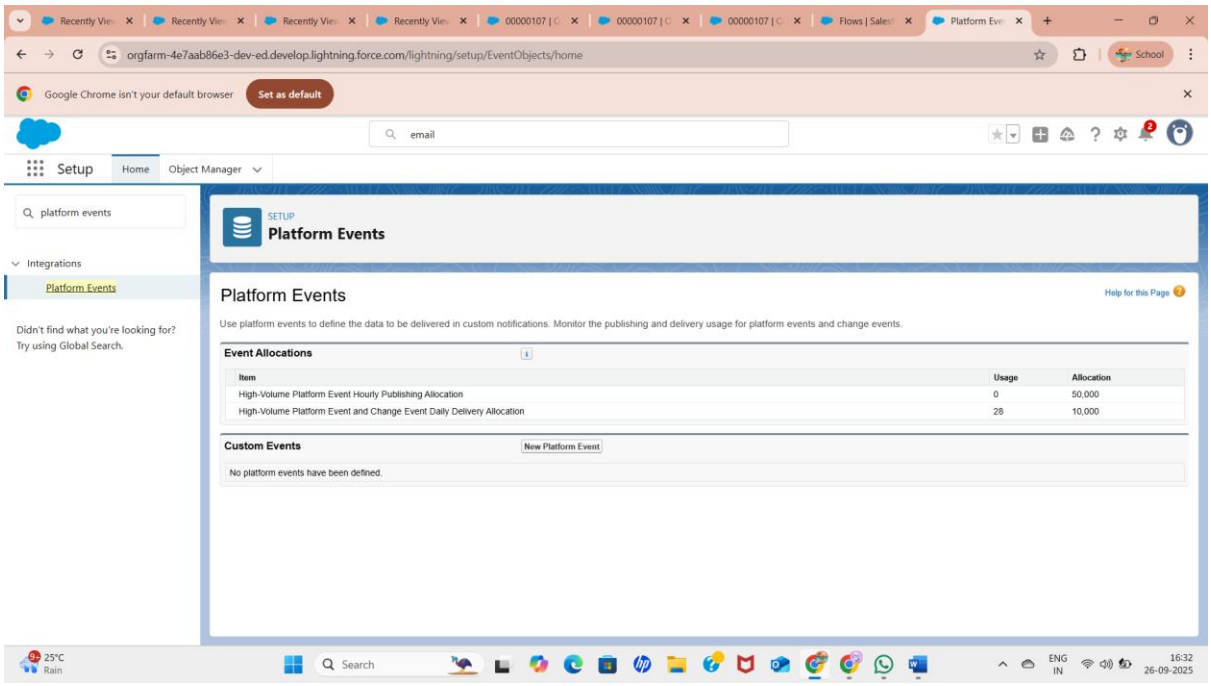
1. Create **Named Credential**
2. Use Apex **HTTP Callout** class or **Flow HTTP Request** action
3. Example in Apex:

```
HttpRequest req = new HttpRequest();
req.setEndpoint('callout:ExternalAPI_Credential/products');
req.setMethod('GET');
Http http = new Http();
HttpResponse res = http.send(req);
System.debug(res.getBody());
```

5. Platform Events

Purpose: Real-time messaging between Salesforce and external apps.

- Define in **Setup → Platform Events → New Platform Event**
- Fields can include ProductId, Quantity__c, EventType__c
- Subscribers (internal/external) listen for these events



6. Change Data Capture (CDC)

Purpose: Track changes in Salesforce records in real-time.

- Go to **Setup → Change Data Capture → Select Objects**
- External systems or Flows can subscribe to updates for syncing

7. Salesforce Connect

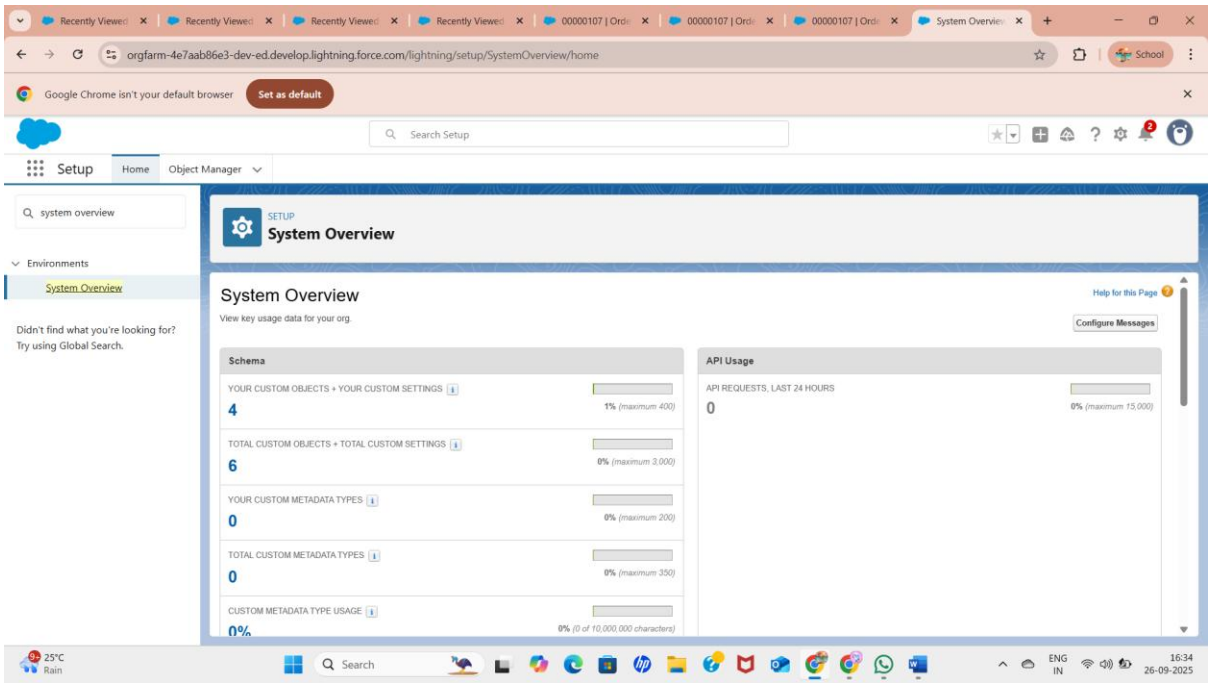
Purpose: Access external objects in real-time without storing data in Salesforce.

- Go to **Setup → External Data Sources → New External Data Source**
- Define OData endpoint, authentication, and create **External Objects**

8. API Limits

Purpose: Salesforce limits API calls per 24 hours to prevent overload.

- Monitor under **Setup → System Overview → API Usage**
- Optimize integrations to avoid hitting limits



9. OAuth & Authentication

Purpose: Securely connect Salesforce with external apps.

- Configure **Connected Apps** in **Setup → App Manager → New Connected App**
- Choose OAuth scopes, callback URL, and policies

10. Remote Site Settings

Purpose: Whitelist external URLs for Apex callouts.

- Go to **Setup → Remote Site Settings → New Remote Site**
- Enter **Remote Site Name** and **URL**
- Required for all Apex HTTP callouts