**Phase 7: Integration & External Access**

The goal of this phase was to integrate Salesforce with external systems, demonstrate how Salesforce can consume and expose services, and configure security for external communication.

**Named Credentials**

Created a Named Credential FakeStoreEC to store the endpoint of the Fake Store API ([https://fakestoreapi.com](https://fakestoreapi.com/)).

Named Credentials simplify authentication by hiding username, password, and endpoint management.

Authentication was set to Anonymous since the Fake Store API is public. In real-world systems, authentication could be Basic, OAuth 2.0, or JWT.

Used in Apex code: callout:FakeStoreEC to make callouts directly without hardcoding URLs.

**External Services**

External Services allow Salesforce to connect to REST or SOAP APIs by importing a schema (Swagger/OpenAPI).

For this project, instead of importing a full schema, we manually created Apex classes to consume the API.

Example: Fetching product list from Fake Store API and displaying it in an LWC.

**Web Services (REST/SOAP)**

REST Services: Implemented REST callouts using Apex Http and HttpRequest.

Example Code:



Parsed JSON response into a list of custom wrapper classes and mapped fields to Product2.

SOAP Services: Reviewed but not implemented, since modern integrations favor REST.

**Callouts**

Created an Apex class ProductAPIService with @AuraEnabled methods that perform REST callouts.

Used this in an LWC called ExternalProductList.

Flow: LWC → calls Apex → Apex calls Fake Store API → JSON parsed → results shown in UI.



**Platform Events**

Created a Platform Event Order\_Update\_Event\_\_e with fields: OrderId, Status, Total.

Platform Events are used for event-driven architecture.

Example: When an order status changes to “Approved”, the event is published, and subscribers can take further actions (e.g., notify finance system).

**Change Data Capture (CDC)**

Enabled CDC for Product2 and Order objects.

This feature publishes changes (create, update, delete, undelete) in real-time.

Example: When stock changes in Product2, an external inventory system subscribed to CDC can automatically sync updates.

**Salesforce Connect**

Salesforce Connect allows linking external databases into Salesforce without storing data.

We reviewed it as an option for large product catalogs, but did not implement it fully because Named Credentials + REST was sufficient.

**API Limits**

Developer Edition has 15,000 API calls per 24 hours.

Limits are shared across REST, SOAP, and Bulk APIs.

We monitored API usage to avoid exceeding limits when calling Fake Store API.

**OAuth & Authentication**

Learned OAuth 2.0 flow (Authorization Code, Client Credentials).

In this project, the Fake Store API didn’t require authentication, but in real-world projects, we would:

Register a Connected App in Salesforce.

Use OAuth 2.0 to authenticate external systems.

Store refresh tokens securely.

**Remote Site Settings**

Configured Remote Site Setting for [https://fakestoreapi.com](https://fakestoreapi.com/).

Without this, Salesforce would block callouts for security reasons.

This ensures Salesforce only communicates with trusted endpoints.