Phase 7 — Integration & External Access (NGO Management System)

Objective: Connect the NGO Management System with external services such as online payment gateways, donor verification services, and external NGO databases to provide a seamless donor experience and real-time campaign updates.

Purpose: Allow donors to contribute online securely and track donations in Salesforce.

Steps Implemented (Click by Click):

1. Go to Setup → Named Credentials → New.

2. Enter details:

Label: NGO_PaymentAPI

Name: NGO_PaymentAPI

URL: https://api.razorpay.com/v1/ (or PayPal API endpoint)

Authentication: Basic Auth (with API Key & Secret)

3. Click Save.

4. Create an Apex Class for sending payment requests:

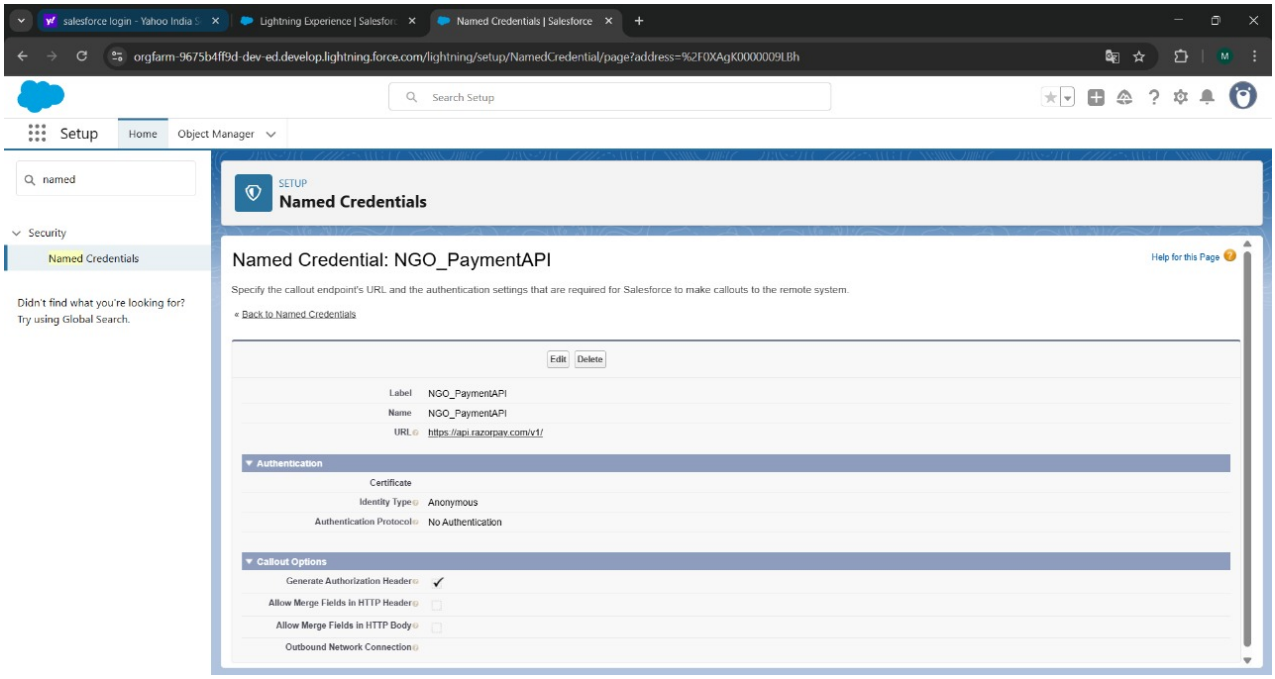
```
HttpRequest req = new HttpRequest();
req.setEndpoint('callout:NGO_PaymentAPI/payment_link');
req.setMethod('POST');
req.setHeader('Content-Type','application/json');
req.setBody('{ "amount": 50000, "currency": "INR", "customer": {"email":
```

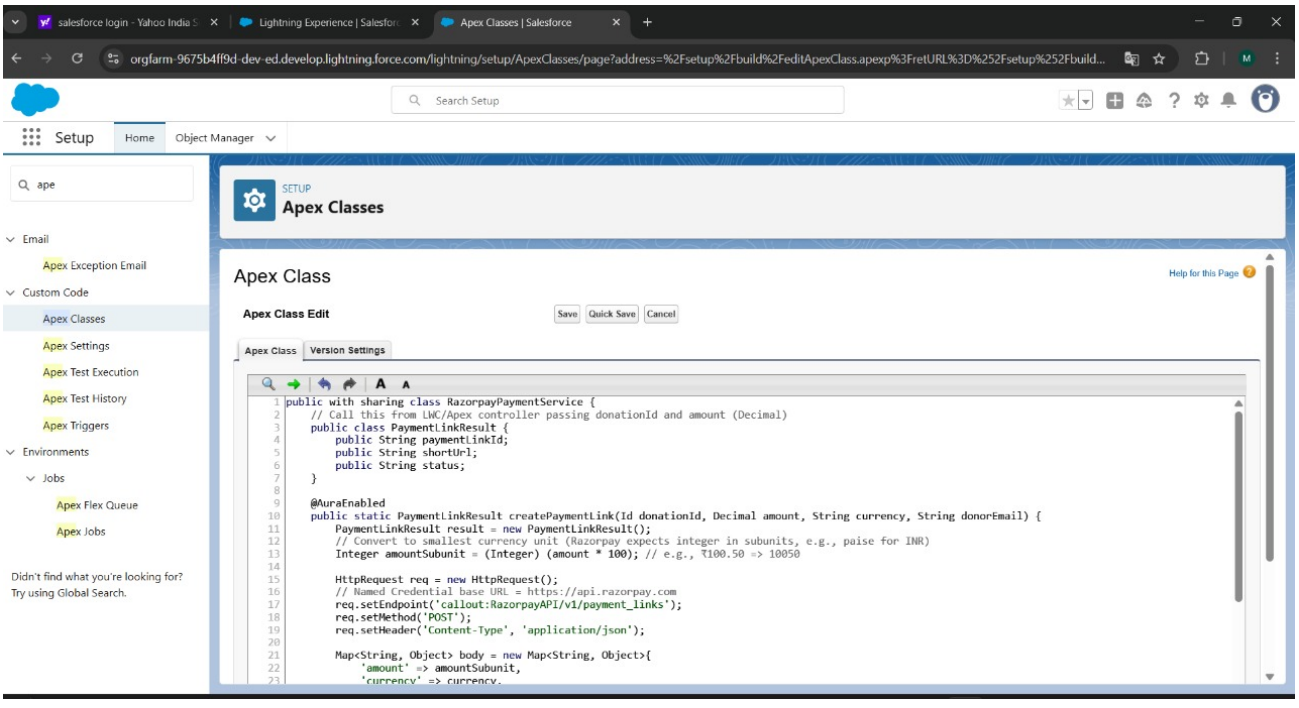
"donor@example.com"} }');

HttpResponse res = new Http().send(req);

5. Capture Payment ID / Status in Donation__c record after response
6. Update logic: On successful payment → update Donation Status = Confirmed.
7. Expose the Payment button in Donation LWC component → Add to Donor Portal page.

✅ Now donors can make online contributions directly, and all transactions are stored in Salesforce.





B. REST API Integration for Donor Verification

Purpose: Validate donor identity via external verification service (e.g., Aadhaar/Email verification API).

Steps Implemented (Click by Click):

1. Go to Setup → Named Credentials → New.

2. Enter details:

Label: DonorVerifyAPI

Name: DonorVerifyAPI

URL: https://api.donorverify.com/v1

Authentication: API Key Header

3. Create an Apex Class for donor verification:

```
HttpRequest req = new HttpRequest();
req.setEndpoint('callout:DonorVerifyAPI/verify');
req.setMethod('POST');
req.setHeader('Authorization','Bearer YOUR_API_KEY');
req.setHeader('Content-Type','application/json');
req.setBody('{ "email": "donor@example.com" }');
HttpResponse res = new Http().send(req);
```

4. Parse JSON response → Update Donor__*c.Verified*__c = TRUE/FALSE.

5. Display verification result on Donor Detail Page using an LWC badge.

✅ Donor authenticity is verified and stored in Salesforce.

C. Platform Events & Change Data Capture (CDC)

Purpose: Sync NGO campaign updates across Salesforce and external websites/mobile

apps.

Steps Implemented (Click by Click):

1. Go to Setup → Platform Events → New Platform Event.

Label: Campaign_Update

API Name: Campaign_Update__e

Fields: CampaignId, Title, Status, GoalAmount, RaisedAmount

2. Save & Deploy Platform Event.

3. Create Apex Trigger on Campaign__c to publish event when a record is updated.

4. External apps subscribe via CometD/WebSocket to get updates in real time.

✅ Now external NGO portals/mobile apps get live updates whenever campaigns change.

D. Salesforce Connect (External NGO Database)

Purpose: View NGO partner database (e.g., Volunteers, Beneficiaries) inside Salesforce without storing data locally.

Steps Implemented (Click by Click):

1. Go to Setup → External Data Sources → New External Data Source.

2. Enter details:

Name: NGO_ExternalDB

Type: OData 4.0

URL: https://ngo-external-db.com/odata

Authentication: Named Credential (OAuth)

3. Validate & Sync tables.

4. Create External Objects like Volunteer__*x, Beneficiary*__x

5. Add related list of Volunteers/Beneficiaries to NGO Campaign record page.

✅ Users can see external NGO data inside Salesforce seamlessly

E. OAuth & Remote Site Settings

Purpose: Enable secure API access for all integrations.

Steps Implemented (Click by Click):

1. Go to Setup → Security → Remote Site Settings → New

Add URLs for Payment Gateway, Donor Verification API, NGO Database.

2. Go to Setup → App Manager → New Connected App.

Provide OAuth Scopes (Full Access / API / Refresh Token).

Save and copy Consumer Key & Secret.

3. Update Named Credentials to use OAuth 2.0

✅ External integrations are now secured with OAuth and remote site settings.

Summary of Implemented Integrations

Payment Gateway (Razorpay/PayPal): Enables secure online donations.

Donor Verification API: Ensures donor identity authenticity.

Platform Events & CDC: Keeps campaigns synced with external portals.

Salesforce Connect: Displays live external NGO data.

OAuth & Remote Site Settings: Secures all external API communication.