Phase 7: Integration & External Access

Goal: Enable the Leave Tracking app to connect with external systems and services securely.

1. Named Credentials

- Created **Named Credentials** to securely store API keys and endpoints.
- Example: HRMS API credentials to validate employee leave balances in an external HR system.

2. External Services

- Integrated Salesforce with **HR / Payroll systems** for leave balance validation.
- Used **External Services** to import schema and auto-generate Apex classes.

Sample Code (HTTP Callout):

```
public with sharing class LeaveIntegrationService {
    public static void getLeaveBalance(String employeeId) {
        Http http = new Http();
        HttpRequest req = new HttpRequest();
        req.setEndpoint('callout:HR_System/leavebalance/' + employeeId);
        req.setMethod('GET');

        HttpResponse res = http.send(req);
        if(res.getStatusCode() == 200){
            System.debug('Leave Balance: ' + res.getBody());
        } else {
            System.debug('Error: ' + res.getStatus());
        }
    }
}
```

3. Email Service Integration

- Salesforce sends email notifications when leave is approved/rejected.
- Can also integrate with Gmail/Outlook API for two-way sync.
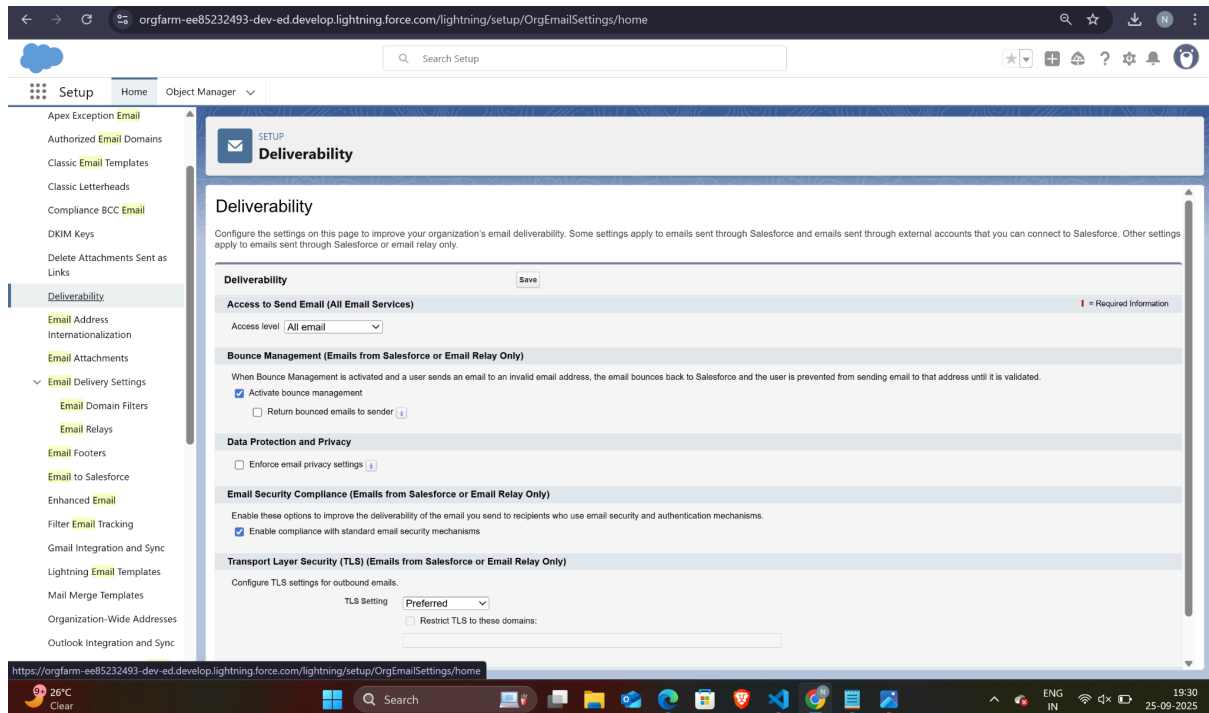
4. Platform Events

- Published a **LeaveRequestEvent__e** when a new leave request is submitted.
- External payroll/attendance systems can subscribe and update their records automatically.

Sample Platform Event Trigger:

```
trigger LeaveEventTrigger on LeaveRequest__c (after update) {
    for(LeaveRequest__c lr : Trigger.new){
        if(lr.Status__c == 'Approved'){
            Leave_Status_Event__e eventMsg = new Leave_Status_Event__e(
                LeaveId__c = lr.Id,
                Status__c = 'Approved',
                EmployeeEmail__c = lr.User__r.Email
            );
            Database.SaveResult result = EventBus.publish(eventMsg);
        }
    }
}
```

5. Change Data Capture (CDC)

- Enabled **CDC** for the LeaveRequest__c object.
- When leave status changes (Approved / Rejected), external HR tools receive updates instantly.

6. Salesforce Connect

- Configured **Salesforce Connect** to link an **external HR database**.
- Employees can view leave balances stored outside Salesforce **without data duplication**.

7. OAuth & Authentication

- Implemented **OAuth 2.0** for secure login when employees access the **Employee Self-Service Portal**.
- Portal users authenticate with company's Single Sign-On (SSO).

8. Remote Site Settings

- Configured **Remote Site Settings** to allow callouts to HR/Payroll domains (e.g., https://hr.company.com).
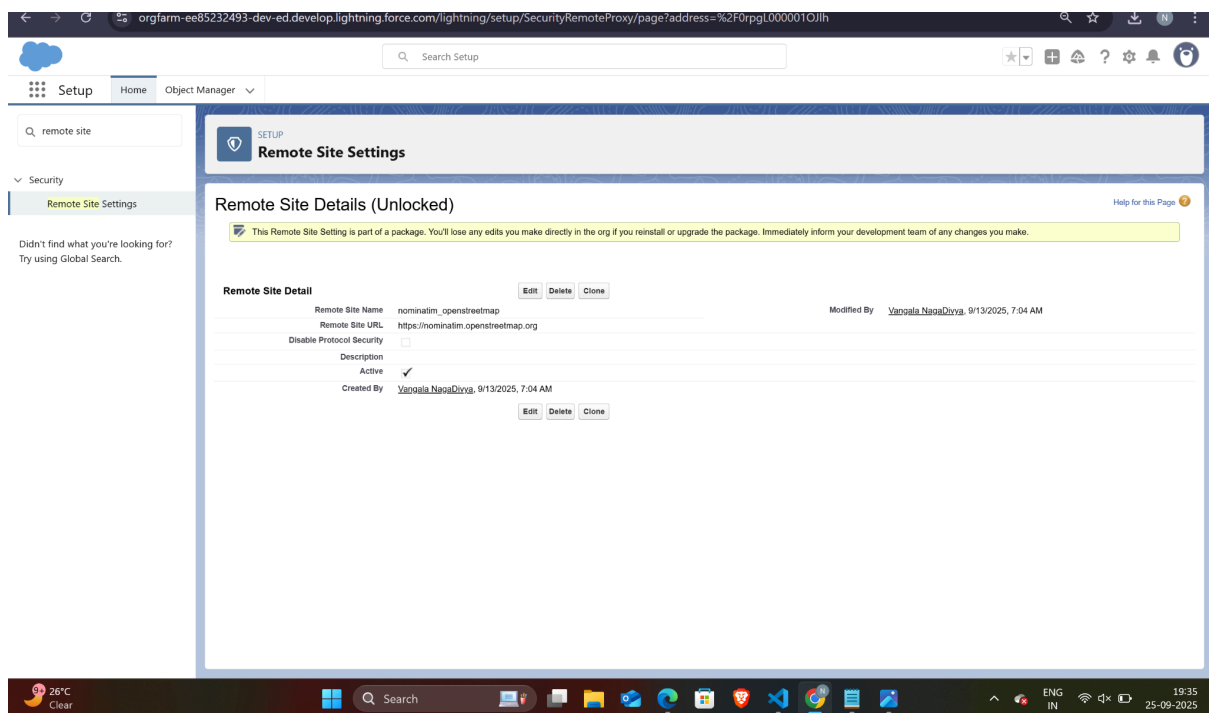
Phase 7 Outcome

- Leave requests are **validated and synced** with external HR systems in real time.
- Managers see accurate leave balances across systems.
- Employees have a seamless experience whether using Salesforce or external portals.
- The app is now **integration-ready and scalable** for enterprise needs.