Phase 7: Integration & External Access

1. Named Credentials Setup

- Define Named Credentials in Salesforce to securely store external service URLs + authentication.
- Example use case: Connecting Salesforce to an HR system API for employee details.

2. External Services & Callouts

Demonstrate Apex HTTP Callout to fetch leave balance from an external HR system.

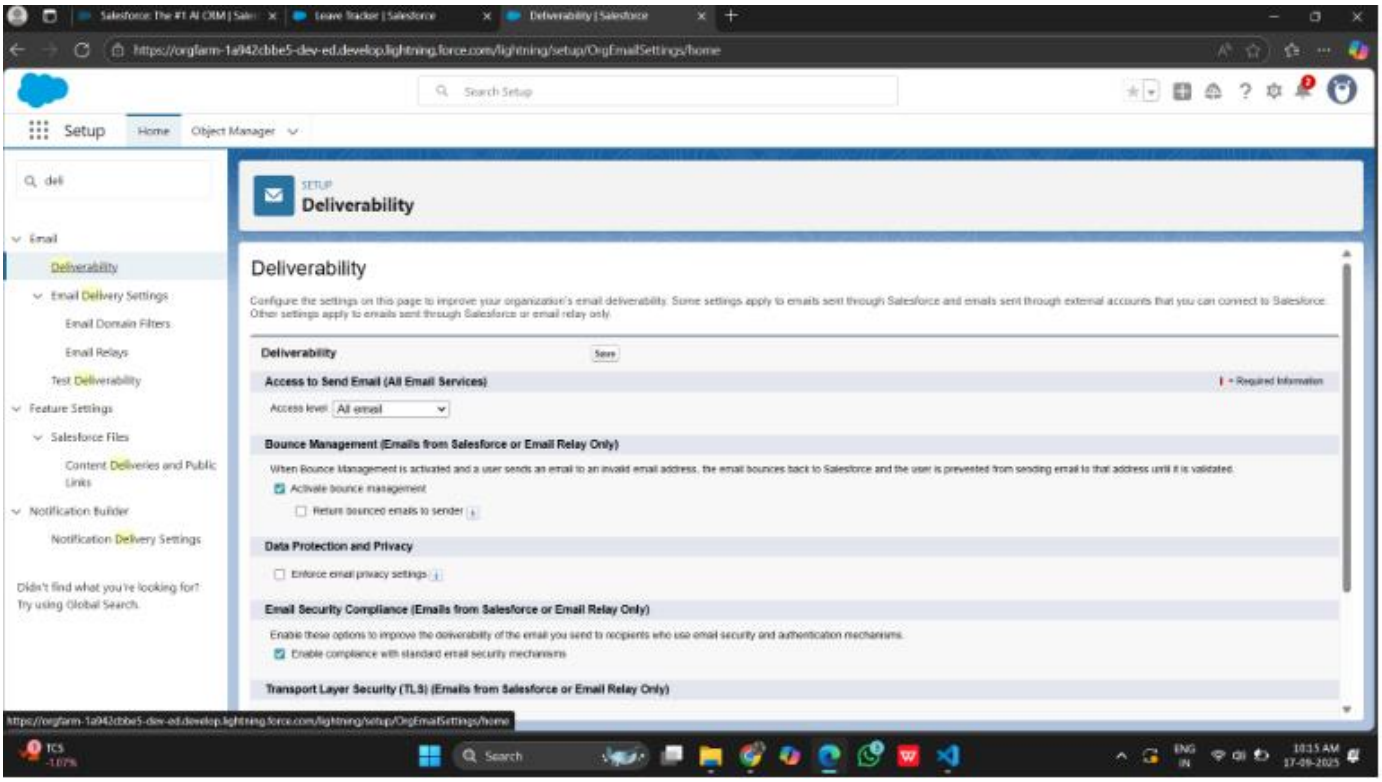
Sample Code (HTTP Callout):

```
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 for Real-time Updates

- Use Platform Events to notify external systems (like HR Payroll) when leave status changes.
- 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. OAuth & Authentication

- If external API requires OAuth 2.0, connect via Named Credentials → OAuth.
- Secure token handling ensures safe communication.