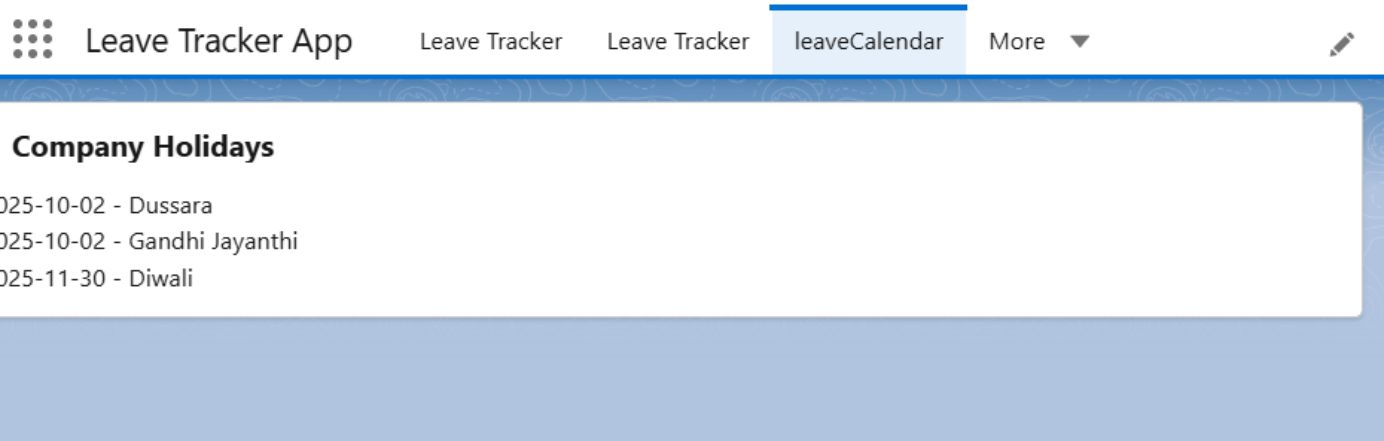


Phase 7: Integration & External Access

Integrations:

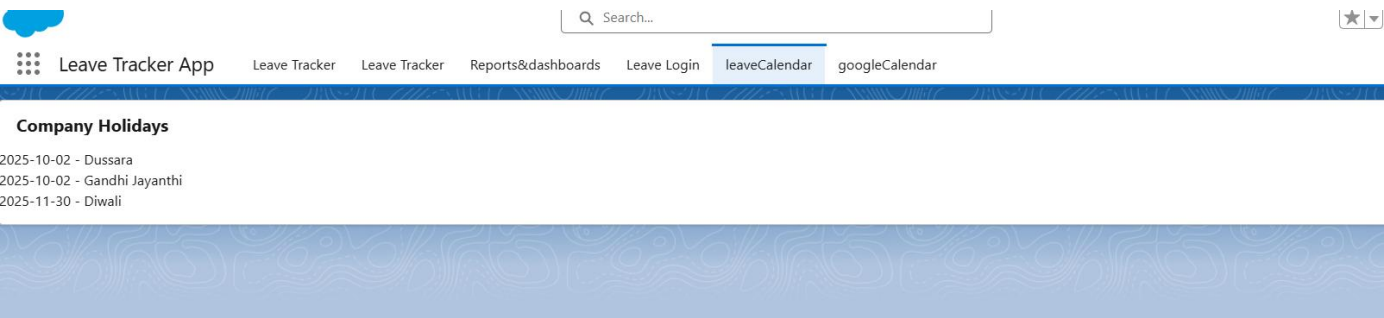
Calendar Integrations:

- Google Calendar / Outlook Tab: Embed or sync employee calendars inside Salesforce.
- Purpose: Employees can see leave requests alongside their personal/work calendar to avoid conflicts.



API-Based Integrations (Advanced)

- **Google Calendar API / Microsoft Graph API:**
Automatically push approved leaves to external calendars using Apex or middleware.
- **Purpose:** Real-time syncing of leave events with company calendars.



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.

External Services & Callouts

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

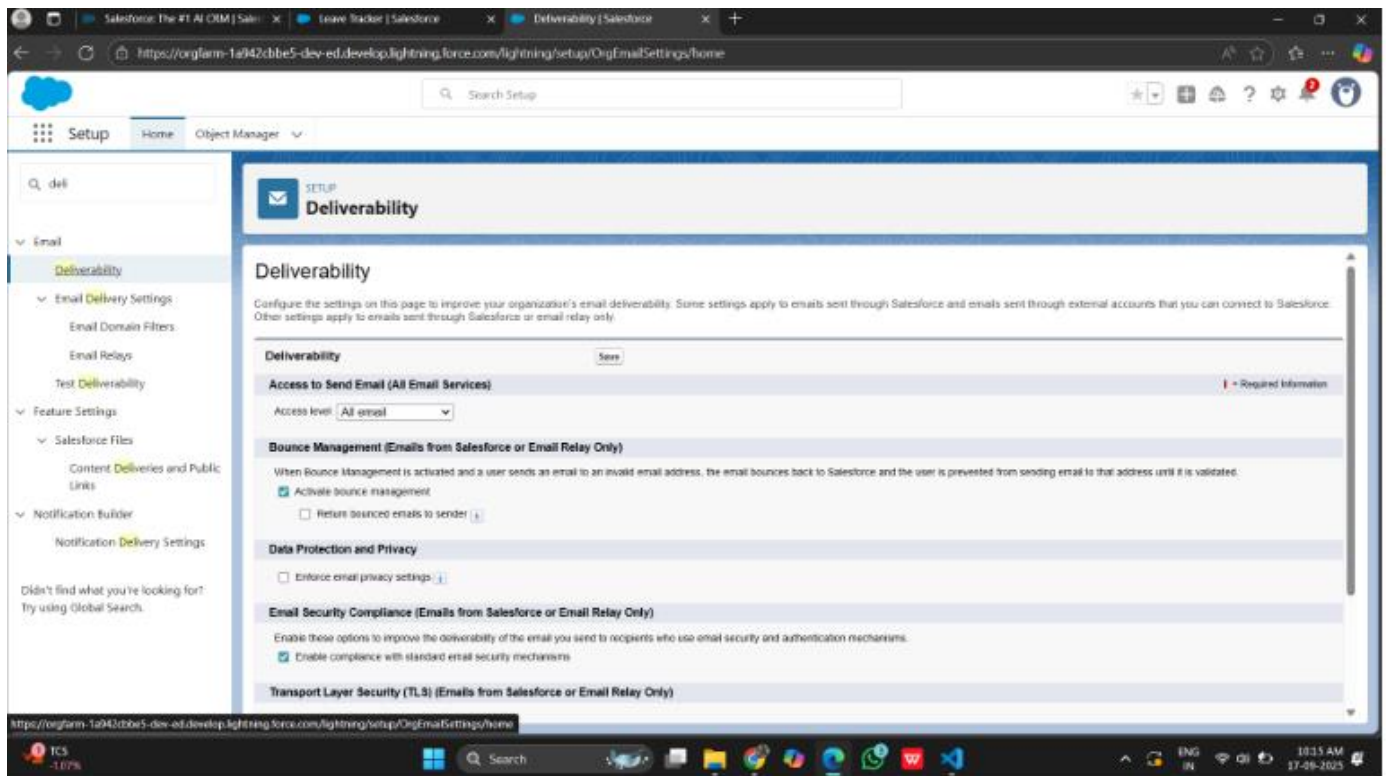
Sample Code (HTTP Callout):

```
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());
        }
    }
}
```

Email Service Integration

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



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(
                Leaveld__c = lr.Id,
                Status__c = 'Approved',
                EmployeeEmail__c = lr.User__r.Email
            );
            Database.SaveResult result = EventBus.publish(eventMsg);
        }
    }
}
```

OAuth & Authentication

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