Phase 5: Apex Programming (Developer)

■ Goal: Add advanced logic into the Membership & Subscription Manager project.

1. Apex Triggers
- Implemented a trigger on Subscription__c to automatically calculate End Date based on Plan.
- Logic:
• Basic Plan → End Date = Start Date + 30 days
• Premium Plan → End Date = Start Date + 90 days
• Gold Plan → End Date = Start Date + 365 days

2. Reusability & Clean Code
- Logic written in trigger ensures automation without manual input.
- Can be extended later with a handler class if system grows.

3. SOQL Usage
- Trigger handles record values using collections (Trigger.new).
- Prevents manual errors in subscription data entry.

4. Exception Handling
- Null checks are added to avoid runtime errors when fields are missing.

5. Test Class (Planned)
- Will create Apex Test Class to validate different plan scenarios.
- Ensures higher code coverage and deployment readiness.

6. Future Extensions
- Batch Apex → Mark expired subscriptions daily.
- Scheduled Apex → Email admins with daily status reports.
- Queueable Apex → Handle async operations like discount calculations.

Conclusion:
With Apex Trigger implemented, subscriptions auto-calculate end dates, reducing manual work.
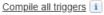
Phase 5: Implementation Screenshots

Apex Trigger
SubscriptionEndDateTrigger

Apex Trigger Detail   Edit Delete Download Show Dependencies

Name	SubscriptionEndDateTrigger	sObject Type	Subscription
Code Coverage	0% (0/8)	Status	Active
Created By	Srinadh Veeravalli, 9/24/2025, 11:40 PM	Last Modified By	Srinadh Veeravalli, 9/24/2025, 11:40 PM
Namespace Prefix			

Apex Trigger | Version Settings | Trace Flags

```
1 trigger SubscriptionEndDateTrigger on Subscription__c (before insert, before update) {
2     for (Subscription__c sub : Trigger.new) {
3         if (sub.Start_Date__c != null && sub.Plan__c != null) {
4             if (sub.Plan__c == 'Basic') {
5                 sub.End_Date__c = sub.Start_Date__c.addDays(30);
6             } else if (sub.Plan__c == 'Premium') {
7                 sub.End_Date__c = sub.Start_Date__c.addDays(90);
8             } else if (sub.Plan__c == 'Gold') {
9                 sub.End_Date__c = sub.Start_Date__c.addDays(365);
10            }
11        }
12    }
13 }
```

Apex Triggers

This page allows you to view and modify all the triggers in your organization. To create a new trigger, navigate to the approp

✓ **Percent of Apex Used: 0.01%**
You are currently using 566 characters of Apex Code (excluding comments and @isTest annotated classes) in your organiz
Classes and Triggers defined in your organization.

Compile all triggers ℹ️

View: All ▾ Create New View

Developer Console

Action	Name ↑	Namespace Prefix	sObject Type	Api Version	Status
Edit | Del	SubscriptionEndDateTrigger		Subscription	64.0	Active