

## 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

Apex Trigger  
SubscriptionEndDateTrigger

Apex Trigger Detail

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

```
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 }
```

### 2. Reusability & Clean Code

- Logic written in trigger ensures automation without manual input.
- Can be extended later with a handler class if the system grows.

### 3. SOQL Usage

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


# Apex Triggers

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



## Percent of Apex Used: 0.01%

You are currently using 566 characters of Apex Code (excluding comments and @isTest annotated classes) in your organization. Classes and Triggers defined in your organization.

[Compile all triggers](#) 

View: All  [Create New View](#)

Developer Console						
Action	Name ↑	Namespace Prefix	sObject Type	Api Version	Status	
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">SubscriptionEndDateTrigger</a>		<a href="#">Subscription</a>	64.0	Active	

## 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.