

Phase 5: Apex Programming

Project: Retail Customer Complaint Hub

This phase introduces a simple server-side automation using

Apex, Salesforce's native programming language. The goal is to create a basic Apex Trigger that automatically populates a field on new complaint records, demonstrating the use of developer tools to enhance the application's functionality.

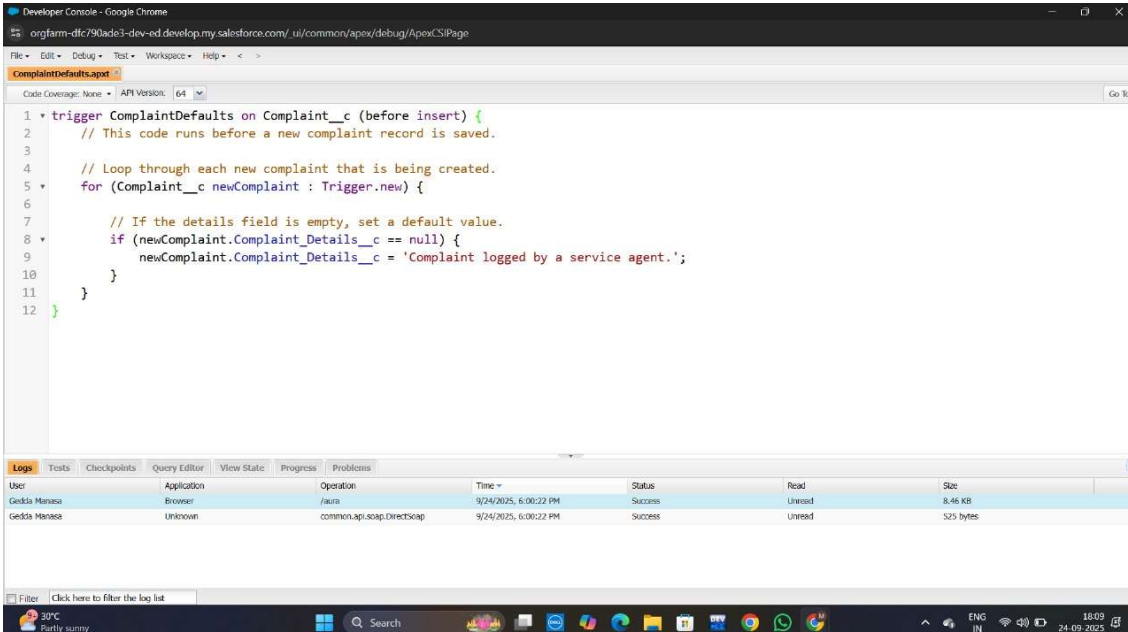
1. Apex Trigger: Complaint Defaults

- **Purpose:** To ensure that every new complaint record has an initial note in the details section, even if the user does not enter one manually.
- **How it Works:** This is a before insert trigger, which means the code runs just before a new complaint record is saved to the database. It checks each new complaint, and if the "Complaint Details" field is empty, it inserts a default piece of text.

Implementation and Testing

A. The Apex Code

The following code was created using the Developer Console and saved in the system.



```
1 trigger ComplaintDefaults on Complaint__c (before insert) {
2     // This code runs before a new complaint record is saved.
3
4     // Loop through each new complaint that is being created.
5     for (Complaint__c newComplaint : Trigger.new) {
6
7         // If the details field is empty, set a default value.
8         if (newComplaint.Complaint_Details__c == null) {
9             newComplaint.Complaint_Details__c = 'Complaint logged by a service agent.';
10        }
11    }
12 }
```

| User | Application | Operation | Time | Status | Read | Size |
|----------------|-------------|----------------------------|-----------------------|---------|--------|-----------|
| Gedda Maneesha | Browser | /aura | 9/24/2025, 6:00:22 PM | Success | Unread | 8.46 KB |
| Gedda Maneesha | Unknown | common.api.soap.DirectSoap | 9/24/2025, 6:00:22 PM | Success | Unread | 525 bytes |

B. Testing the Trigger

To test the trigger, we create a new complaint record, leaving the details field blank to see if the trigger populates it automatically.

1. **While Creating the Complaint** Here, we are creating a new complaint record. Notice that the **"Complaint Details"** field is left empty before clicking "Save."

The screenshot shows the 'New complaint' form in Salesforce. The form is titled 'Information' and contains the following fields:

- Complaint ID: C-00011.
- Owner: Gedda Manasa
- Customer: John Smith
- Product: Search Products...
- complaint type: --None--
- Status: --None--
- Complaint details: (Empty text area)
- Compensation Amount: 300

Buttons at the bottom: Cancel, Save & New, Save.

2. **After Creating the Complaint** After saving the record, the trigger fires successfully. The screenshot below shows the new complaint record page, where the **"Complaint Details"** field has been automatically populated by the Apex code.

The screenshot shows the 'Complaint C-00011' record page in Salesforce. The 'Details' tab is selected, and the following information is displayed:

- Complaint ID: C-00011.
- Owner: New Complaint Queue
- Customer: John Smith
- Product: (Empty)
- complaint type: (Empty)
- Status: (Empty)
- Complaint details: Complaint logged by a service agent.
- Compensation Amount: \$300
- Created By: Gedda Manasa, 9/25/2025, 2:30 AM
- Last Modified By: Gedda Manasa, 9/25/2025, 2:30 AM

Conclusion

The Apex Trigger was successfully created, tested, and deployed. This completes the basic developer customization requirement for the project and adds a useful automation to the application.